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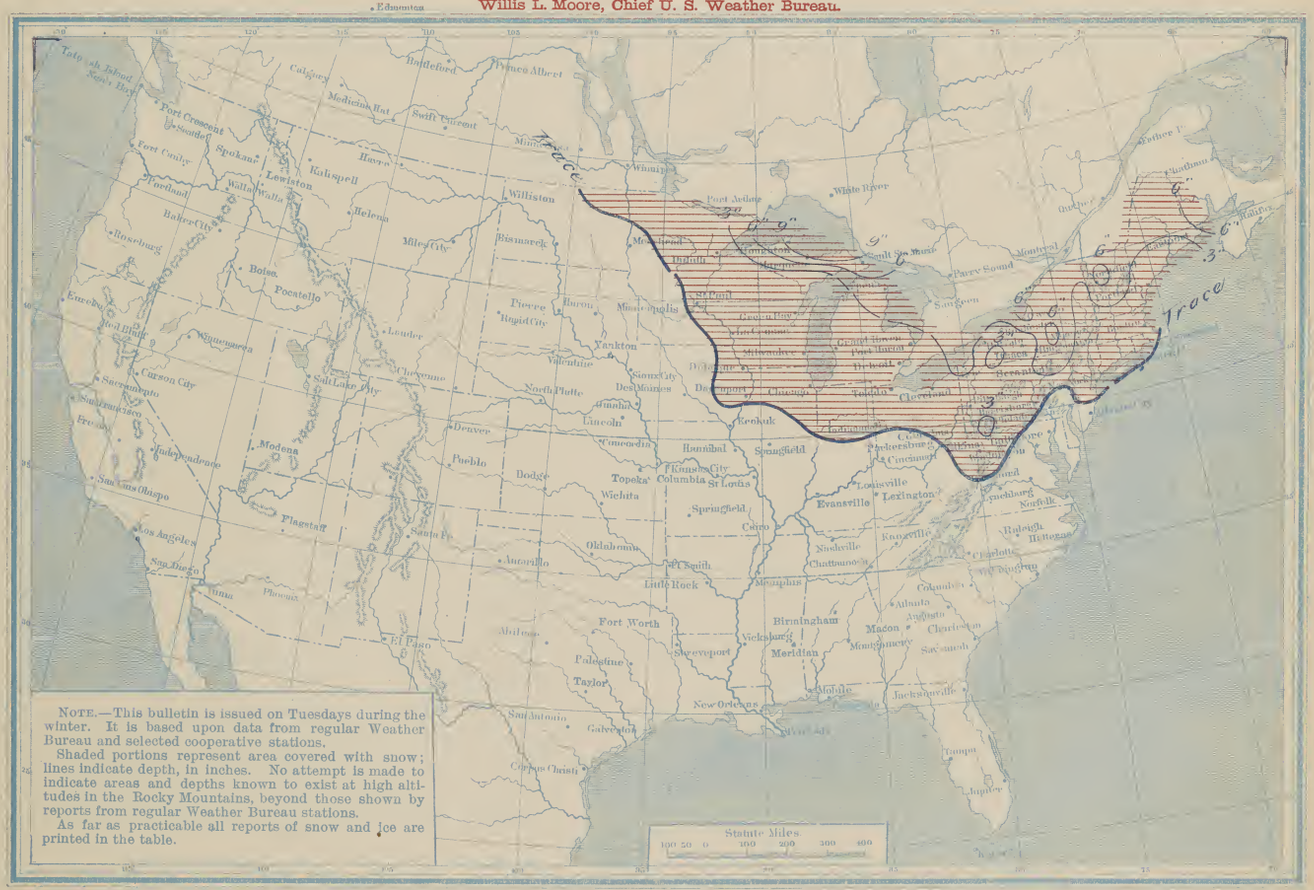
U. S. DEPARTMENT OF AGRICULTURE,

WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.



NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent area covered with snow; lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *December 3, 1907.*

DEPTH OF SNOW.

The northern portion of the upper Lake region, portions of New York and Pennsylvania, and northern New England were covered with snow to depths exceeding 3 inches at 8 p. m., December 2, 1907. The eastern portion of the Upper Michigan Peninsula and small areas in central New York and northern New England had depths of 6 inches or more, the greatest, 9 to 10 inches, being along the southern shore of Lake Superior. The southern limit of snow extended from eastern Iowa to northern Virginia and thence northeastward to the New England coast. The region from the northern Rocky Mountains to the upper Mississippi Valley was free from snow.

On December 2, 1906, from 4 to 10 inches of snow covered portions of the middle and southern Plateau regions. Slight depths were reported from the northern Plateau and Rocky Mountain regions and from 2 to 8 inches from the upper Missouri and Red River of the North valleys. Thruout these districts there was practically no snow at 8 p. m., December 2, 1907, while to the eastward of the upper Mississippi Valley the area covered and the depths reported on the date mentioned were greater than at the corresponding period of last year.

ICE IN RIVERS, HARBORS, ETC.

Some thin ice was reported from western Lake Superior and from 1 inch to slightly more than 3 inches from the rivers of northern New England. No ice has yet formed in the upper Missouri and upper Mississippi rivers, or in the Lake region, except as stated.

The following special reports have been received by telegraph:

Gardiner, Me., December 2.—There is thin floating ice in the Kennebec River.

Albany, N. Y., December 3.—In the Mohawk Valley the snow averages 3 inches in depth; in the Hudson Valley the depth ranges from a trace at Athens to 4 inches at Thurman. There is no ice in the Hudson or Mohawk rivers.

At the corresponding date of 1906 there was 8 inches of ice in the Red River of the North at Moorhead, 4.5 inches in the James River at Huron, and 4 inches in the Missouri River at Bismarck. In the rivers of northern New England there was generally somewhat less ice this year than at the corresponding date of 1906.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., DECEMBER 2, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	.....
Connecticut.		
Hartford	T.	0.0
New Haven	T.	.....
West Simsbury	T.	.....
Illinois.		
Chicago	1	.....
Dixon	2	.....
La Salle	1	0.0
Indiana.		
Auburn	1	.....
Indianapolis	T.	.....
Knox	2	.....
Marion	1	.....
Rockville	T.	.....
Iowa.		
Davenport	T.	0.0
Dubuque	1	0.0
Iowa City	T.	.....
Marshalltown	T.	.....
Maine.		
Bangor	2	0.0
Buckfield	2	.....
Cornish	2	.....
Danforth	3	.....
Eastport	6	1.5
Gardiner	T.	*
Greenville	4	3.5
Lewiston	2	2.0
Orono	3	.....
Portland	1	0.0
Maryland.		
Grantsville	2	.....
Massachusetts.		
Boston	T.	.....
Concord	1	.....
Fitchburg	T.	.....
Mansfield	1	.....
North Adams	2	.....
Michigan.		
Alpena	3	0.0
Battle Creek	1	.....
Big Rapids	T.	.....
Chatham	10	.....
Grand Haven	T.	0.0
Grand Marais	9	.....
Grand Rapids	T.	0.0
Hillsdale	1	.....
Houghton	10	0.5
Humboldt	9	.....
Iron Mountain	1	.....
Iron River	2	.....
Lansing	T.	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Manistee	1	.....
Maple Ridge	5	.....
Marquette	9	0.0
Port Huron	T.	0.0
Sault Ste. Marie	7	0.0
St. Ignace	6	.....
South Haven	T.	.....
Minnesota.		
Detroit	T.	.....
Duluth	T.	2.0
Faribault	T.	.....
Grand Meadow	2	.....
Hinckley	2	.....
Minneapolis	T.	.....
St. Paul	T.	0.0
New Hampshire.		
Bethlehem	5	.....
Concord	T.	0.0
Durham	1	.....
New Jersey.		
Asbury Park	T.	.....
Charlotteburg	2	.....
Hightstown	1	.....
Newark	2	.....
Tuckerton	T.	.....
New York.		
Addison	1	.....
Albany	1	0.0
Auburn	4	.....
Binghamton	T.	.....
Buffalo	T.	0.0
Canton	3	.....
Cooperstown	4	.....
Cutchogue	1	.....
De Ruyter	6	.....
Franklinville	3	.....
Geneva	1	.....
Herkimer	5	.....
Ithaca	2	.....
Jamestown	2	.....
Le Roy	1	.....
Malone	3	.....
New York	T.	.....
Oswego	6	0.0
Rochester	1	0.0
Saranac Lake	2	.....
Setauket	2	.....
Southampton	T.	.....
Syracuse	3	.....
Wedgwood	4	.....
North Dakota.		
Devils Lake	T.	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Ohio.	*Inches*	*Inches*
Cleveland	T.	0.0
Columbus	T.	0.0
Fredericktown	T.	.....
Garrettsville	2	.....
Greenville	1	.....
Tiffin	T.	.....
Toledo	T.	0.0
Wauseon	1	.....
Pennsylvania.		
Aleppo	T.	.....
Erie	3	0.0
Harrisburg	T.	0.0
Pittsburg	T.	0.0
St. Marys	2	.....
Scranton	3	.....
Selins Grove	1	.....
Skidmore	1	.....
Somerset	3	.....
South Eaton	4	.....
Rhode Island.		
Block Island	T.	0.0
Kingston	T.	.....
Narragansett	T.	.....
Providence	T.	0.0
Vermont.		
Brattleboro	2	1.0
Burlington	5	0.0
Northfield	6	.....
St. Johnsbury	4	.....
Virginia.		
Dale Enterprise	T.	.....
Mount Weather	T.	.....
West Virginia.		
Elkins	T.	0.0
Morgantown	1	.....
New Martinsville	T.	.....
Parkersburg	T.	0.0
Weston	T.	.....
Wisconsin.		
Eau Claire	2	.....
Green Bay	T.	0.0
Koepenick	1	.....
La Crosse	1	0.0
Lake Mills	1	.....
Madison	1	.....
Medford	1	.....
Milwaukee	1	0.0
Mount Horeb	2	.....
Portage	T.	.....
Racine	T.	.....
Viroqua	2	.....

* Floating ice. T. indicates trace.

U. S. DEPARTMENT OF AGRICULTURE.

WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.

WASHINGTON, D. C., *December 10, 1907.*

DEPTH OF SNOW.

The area covered with snow at 8 p. m., December 9, 1907, was comparatively small. The greatest depths, ranging from 3 to 5 inches, were reported from the interior of northern New England and along the northern shore of the Upper Michigan Peninsula.

To the eastward of the upper Mississippi Valley both the area covered and the depths reported were considerably smaller than were shown by the bulletin of the previous week. Slight depths, however, were reported from the northern Rocky Mountain region, where there was none on the 2d instant.

At the corresponding date of 1906 the northern portion of the country from the Rocky Mountains eastward to northern New England was covered to considerable depths, the Dakotas, Minnesota, and upper Michigan, having depths ranging from 3 to 12 inches. Considerable depths also existed over the western portion of the middle Plateau region.

ICE IN RIVERS, HARBORS, ETC.

Comparatively little ice has formed as yet and that reported is confined to the interior of northern New England, western Lake Superior, and the headwaters of the rivers to the westward of the upper Lakes, altho very little has formed in the upper Mississippi River and none in the upper Missouri. In the interior of northern New England the thickness of ice at 8 p. m., December 9, 1907, generally ranged from 1 inch to 6 inches, but none was reported from stations near the coast. In Duluth harbor it was 3 inches thick and in the Red River of the North at Moorhead there was a thickness of 6 inches.

The following special reports have been received by telegraph:

Gardiner, Me., December 9.—The Kennebec River is partly closed from Augusta to South Gardiner, but is open below to the sea.

Albany, N. Y., December 10.—The snow averages 2 inches in depth in the Mohawk Valley; in the Hudson Valley the depth ranges from a trace at Cohoes to 3 inches at Thurman. There is no ice in the Hudson or Mohawk rivers.

At the corresponding date of 1906 ice ranged from 10 to 17 inches in the upper Missouri River from Williston, N. Dak., to Bismarck, N. Dak.; 12 inches was reported from the Red River of the North at Moorhead, Minn.; there was floating ice in the Mississippi River as far south as Hannibal, Mo., and there was from 6 to 8 inches of ice in the rivers of northern New England.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., DECEMBER 9, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*	*Michigan*—Cont'd.	*Inches*	*Inches*	*North Dakota.*	*Inches*	*Inches*
Flagstaff	T.	.....	Iron Mountain	T.	.....	Bismarck	T.	0.0
Colorado.			Lewiston	T.	.....	Williston	T.	0.0
Durango	T.	.....	Marquette	3	0.0	*Pennsylvania.*		
Connecticut.			Sault Ste. Marie	1	0.0	Ephrata	1	.....
Hartford	T.	0.0	*Minnesota.*			Gordon	4†	.....
West Simsbury	T.	.....	Duluth	T.	3.0	Harrisburg	T.	0.0
Delaware.			Hinckley	T.	.....	Mifflintown	2	.....
Newark	T.	.....	Moorhead	.....	6.0	Philadelphia	T.	0.0
Kansas.			St. Paul	.....	*	Selins Grove	1	.....
Cottonwood Falls	T.	.....	*Missouri.*			South Eaton	3†	.....
Maine.			Springfield	T.	.....	*Rhode Island.*		
Cornish	1	.....	*Montana.*			Block Island	T.	0.0
Danforth	3	.....	Havre	1	.....	Kingston	T.	.....
Eastport	T.	1.5	Helena	T.	.....	Narragansett	T.	.....
Gardiner	T.	*	Kalispell	T.	.....	Providence	T.	0.0
Greenville	2	6.5	Miles City	1	.....	*South Dakota.*		
Lewiston	T.	3.0	*New Hampshire.*			Huron	.....	1.0
Millinocket	3	.....	Bethlehem	4	.....	*Vermont.*		
Orono	2	.....	Concord	T.	0.0	Brattleboro	1	4.5
Massachusetts.			Durham	1	.....	Burlington	T.	0.0
Boston	T.	.....	Keene	1	.....	Northfield	4	.....
Concord	T.	.....	*New Jersey.*			St. Johnsbury	3	.....
Mansfield	T.	.....	Belvidere	T.	.....	*Virginia.*		
Michigan.			Newark	T.	.....	Mount Weather	T.	.....
Alpena	T.	0.0	*New Mexico.*			*Wisconsin.*		
Calumet	5	.....	Santa Fe	T.	.....	Green Bay	T.	0.0
Chatham	3	.....	*New York.*			Medford	T.	.....
Escanaba	T.	0.0	Albany	T.	0.0	*Wyoming.*		
Grand Marais	2	.....	Cutchogue	2	.....	Lander	2	.....
Houghton	4	0.5				Yellowstone Park	1	.....

* Shore ice. † At 9 a. m. T. indicates trace.

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Willis L. Moore, Chief U. S. Weather Bureau.

3"
6"
9"
Trace
Note.—This bulletin is issued on Tuesday during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.
Shaded portions represent area covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.
As far as practicable all reports of snow and ice are printed in the table.
Statute Miles

WASHINGTON, D. C., *December 17, 1907.*

DEPTH OF SNOW.

At 8 p. m., December 16, 1907, the northern portion of the Middle Atlantic States, New England, the greater part of the upper Lake region, and the extreme northern portion of the upper Mississippi Valley were covered to depths generally ranging from 3 to 9 inches. Portions of the middle and southern Rocky Mountain regions were also covered, the depths ranging from 3 to 6 inches. The greatest depth reported was 18 inches at Cortland, in west-central New York.

The area covered at 8 p. m. of the 16th was much greater than at the same hour on the 9th instant, when only the extreme northern portion of the Lake region and New England had snow to any considerable depths.

Over the Middle Rocky Mountain slope and generally thruout the Lake region and southern New England there is now more snow than there was on December 16, 1906, but in portions of Maine and from the Upper Michigan Peninsula westward to the eastern portions of Washington and Oregon there is much less. At the corresponding date of last year Montana, North Dakota, northern Minnesota, and the Upper Michigan Peninsula were covered to depths ranging from 6 to more than 12 inches.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., December 16, the upper Missouri River was closed northward of Bismarck, N. Dak., where the ice was 10 inches thick, and there was floating or slush ice as far south as Sioux City, Iowa. No ice was reported in the Missouri River on the 9th instant. Since that date a slight increase has occurred in the western portion of the upper Lake region, but in the rivers of New England ice has generally broken up.

The following special reports have been received by telegraph:

Bangor, Me., December 16.—The river is full of moving ice.
Gardiner, Me., December 16.—The Kennebec is free from ice at Gardiner, but below there is ten miles of jammed snow ice.
Lewiston, Me., December 17.—The river is full of anchor ice.
Brattleboro, Vt., December 16.—The ice is broken up and there is none in the river.
Albany, N. Y., December 17.—The snow averages 6 inches in depth in the Mohawk Valley; in the Hudson Valley the average depth is 10 inches. There is no ice in the Hudson or Mohawk rivers.
St. Paul, Minn., December 16.—There is some shore ice in the river.
Sioux City, Iowa, December 17.—Slush ice is running in the river.
Yankton, S. Dak., December 16.—There is floating ice in the river here.

At the corresponding date of last year there was considerably more ice than there now is in the northern districts. In 1906, at this date, the Missouri River was frozen southward to Pierre, S. Dak., and to the northward the ice was from 10 to 13 inches thicker than it was on December 16, 1907. In the upper Lake region, stations now reporting ice had from 2 to 3 inches more in 1906, and in the rivers of New England where there is now practically none there was from 4 to 12 inches.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., DECEMBER 16, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	
Colorado.		
Durango	4	
Grand Junction	T.	
Connecticut.		
Hartford	6	0.0
New Haven	3	
West Simsbury	9	
Idaho.		
Pocatello	2	0.0
Illinois.		
Bloomington	2	
Chicago	7	
Hillsboro	2	
La Salle	1	0.0
Monmouth	T.	
Peoria	T.	0.0
Springfield	T.	
Indiana.		
Indianapolis	T.	
Knox	6	
Lafayette	2	
Marion	2	
Rockville	1	
Iowa.		
Albia	T.	
Carroll	T.	
Charles City	T.	
Des Moines	T.	0.0
Marshalltown	T.	
Sioux City	T.	†
Kansas.		
Concordia	T.	
Cottonwood Falls	T.	
Dodge	T.	
Garden City	2	
Kentucky.		
Eubank	T.	
Mount Sterling	T.	
Maine.		
Bangor	4	†
Buckfield	5	
Cornish	6	
Danforth	4	
Eastport	4	0.5
Gardiner	5	0.0
Greenville	4	7.0
Lewiston	7	‡
Millinocket	6	
Orono	4	
Portland	7	0.0
Maryland.		
Frederick	T.	
Massachusetts.		
Adams	5	
Amherst	6	
Boston	3	
Concord	7	
Fitchburg	8	
Mansfield	6	
North Adams	5	
Michigan.		
Alpena	6	0.0
Ann Arbor	3	
Battle Creek	9	
Big Rapids	4	
Calumet	6	
Detroit	3	0.0
Escanaba	1	0.0
Grand Haven	6	0.0
Grand Rapids	7	
Houghton	4	3.0
Humboldt	9	
Iron Mountain	3	
Iron River	1	
Lansing	7	
Lewiston	6	

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Mackinaw City	4	
Mancelona	3	
Maple Ridge	5	
Marquette	8	0.0
Onaway	2	
Port Huron	6	0.5
Saginaw	7	
South Haven	5	
Minnesota.		
Alexandria	3	
Bird Island	2	
Collegeville	2	
Crookston	2	
Detroit	2	
Duluth	4	5.0
Faribault	T.	
Grand Meadow	2	
Lake Crystal	1	
Milan	4	
Minneapolis	1	
Moorhead	1	6.0
Reeds	T.	
St. Paul	T.	*
Worthington	1	
Missouri.		
St. Louis	T.	0.0
Springfield	T.	
Montana.		
Havre	2	
Helena	1	
Kalispell	T.	
Miles City	1	
Nebraska.		
Imperial	T.	
North Platte	T.	
Oakdale	1	
Valentine	T.	
Nevada.		
Winnemucca	1	
New Hampshire.		
Bethlehem	1	
Concord	6	0.0
Durham	7	
Hanover	5	
Keene	8	
New Jersey.		
Belvidere	2	
Flemington	1	
Newark	2	
New Mexico.		
Santa Fe	1	
New York.		
Addison	6	
Albany	8	0.0
Auburn	9	
Binghamton	8	
Buffalo	5	0.0
Canton	11	
Cooperstown	7	
Cortland	18	
Cutchogue	T.	
Franklinville	6	
Geneva	7	
Herkimer	8	
Ithaca	8	
Jamestown	3	
Le Roy	7	
Malone	10	
Ogdensburg	15	
Oswego	10	1.0
Plattsburg	10	
Poughkeepsie	6	
Rochester	6	0.0
Rome	5	
Saranac Lake	6	
Setauket	T.	

Stations.	Snow.	Ice in rivers, harbors, etc.
New York—Cont'd.	*Inches*	*Inches*
Syracuse	6	
Wedgwood	9	
North Dakota.		
Bismarck	T.	10.0
Devils Lake	2	
Williston	1	2.0
Ohio.		
Cleveland	1	0.0
Columbus	T.	0.0
Fredericktown	2	
Philo	T.	
Sandusky	T.	0.0
Tiffin	T.	
Toledo	1	0.0
Wauseon	3	
Pennsylvania.		
Aleppo	1	
Claysville	1	
Erie	2	0.0
Gettysburg	3	
Greenville	2	
Harrisburg	1	0.0
Mifflintown	5	
Pittsburg	1	0.0
St. Marys	4	
Scranton	7	
Skidmore	3	
South Eaton	8	
Towanda	6	
Rhode Island.		
Kingston	3	
Narragansett	1	
Providence	5	0.0
South Dakota.		
Huron	T.	3.0
Rapid City	T.	
Yankton	T.	†
Utah.		
Salt Lake City	T.	
Vermont.		
Brattleboro	10	0.0
Burlington	4	0.0
Northfield	8	
St. Johnsbury	4	
Virginia.		
Blacksburg	1	
Mount Weather	2	
Stephens City	2	
West Virginia.		
Charleston	T.	
Elkins	1	0.0
Grafton	T.	
New Martinsville	T.	
Romney	4	
Wisconsin.		
Ashland	2	
Eau Claire	T.	
Green Bay	4	4.0
La Crosse	T.	0.0
Lake Mills	3	
Madison	2	
Medford	T.	
Milwaukee	5	0.0
Minocqua	1	
Mount Horeb	2	
New London	2	
Portage	1	
Racine	6	
Sheboygan	8	
Stevens Point	T.	
Viroqua	1	
Wausau	1	
Wyoming.		
Cheyenne	3	
Lander	6	
Yellowstone Park	4	

* Shore ice. † Floating ice. ‡ Anchor ice. T. indicates trace.

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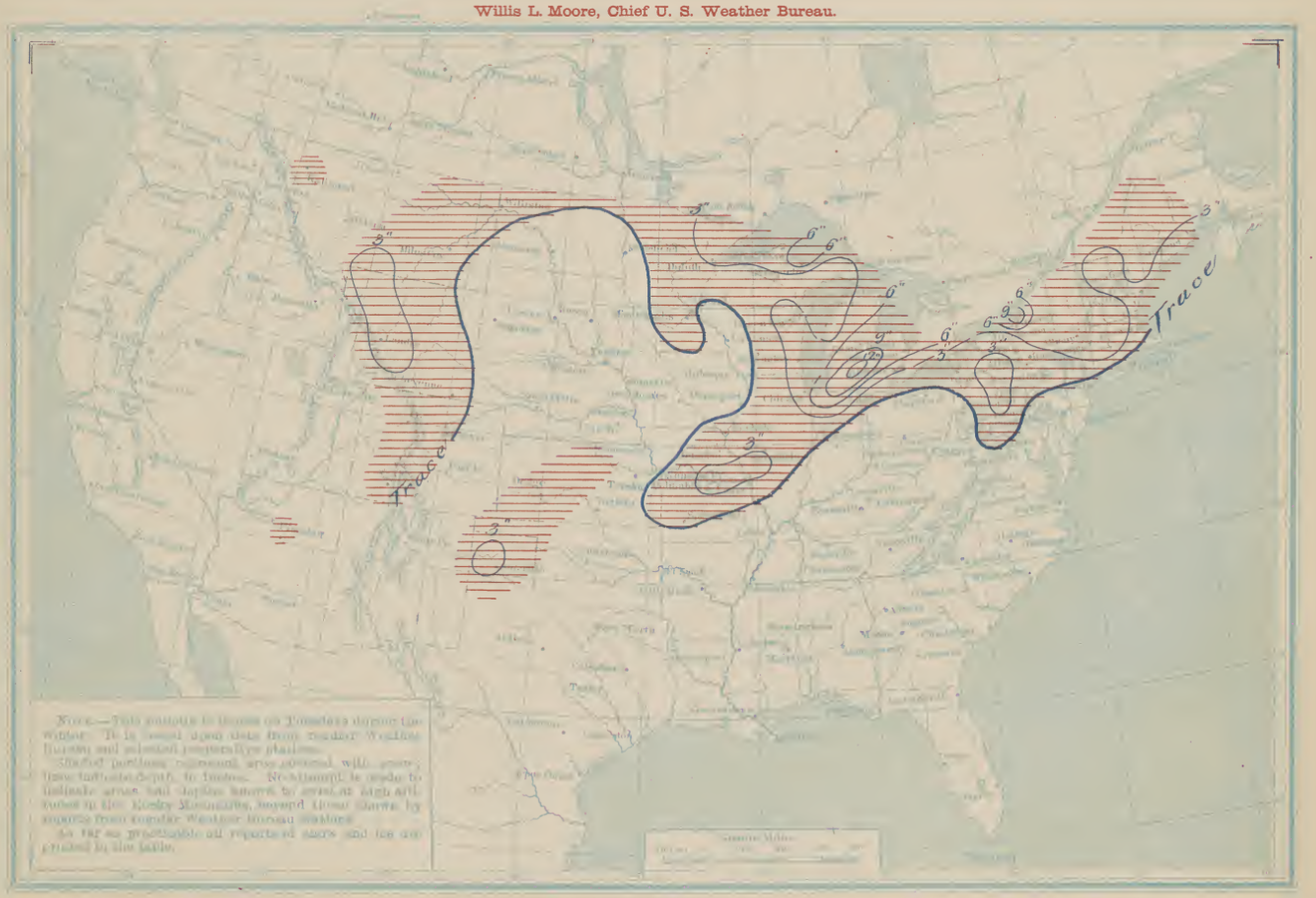
Willis L. Moore, Chief U. S. Weather Bureau.



WASHINGTON, D. C., *December 26, 1907.*

DEPTH OF SNOW.

At 8 p. m., December 23, 1907, the depth of snow generally ranged from 2 to 12 inches in the Lake region and from 1 inch to 5 inches in the northern portions of the Middle Atlantic States and New England, the central Mississippi Valley, and northern Rocky Mountain region.

As compared with the reports of the 16th instant much less snow is shown in New England, the northern portion of the Middle Atlantic States, and over most of the Lake region, while portions of the central Mississippi Valley that were free from snow on the 16th were covered to depths ranging from 1 inch to 4 inches on the 23d.

At this date in the preceding year the southern limit of snow to the eastward of the Mississippi River extended to eastern Tennessee and western North Carolina, and the depths in the lower Lake region and most of New England were materially greater than on the 23d instant. There was also much more snow in the upper Michigan Peninsula, Minnesota, the Dakotas, and Montana, but less over the southern portion of the upper Lake region, central Mississippi, and middle Rocky Mountain slope.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., December 23, 1907, there was from 1 inch to 12 inches of ice in the upper Missouri River from Pierre, S. Dak., to Williston, N. Dak.; 9 inches in the Red River at Moorhead, Minn.; 4.5 inches in the Mississippi River at St. Paul, Minn.; 6.5 inches in Duluth Harbor; and from 2 to 7 inches in the lakes and some of the rivers of Maine. In some of the rivers in the State named, however, no ice has formed since it broke up during the preceding week.

The following special reports have been received by telegraph:

Gardiner, Me., December 23.—Ice in the Kennebec River is breaking up.

Albany, N. Y., December 24.—The snow averages 4 inches in depth in the Mohawk Valley; in the Hudson Valley the average depth is 5 inches. There is no ice in the Hudson or Mohawk rivers.

Alpena, Mich., December 23.—There is some floating ice in Thunder Bay.

Sioux City, Iowa, December 23.—Shore ice extends 30 feet from the bank, but the channel is clear.

Hannibal, Mo., December 23.—There is a little thin floating ice in the river.

Since the 16th instant, the date of the preceding reports, there has been an increase in the thickness of ice in the Lake region and to the westward, the most marked increase being shown in the upper Missouri River, where it ranges from 1 inch to 10 inches. Eastward of the lower Lakes there has been no material change in the ice situation since the issue of the preceding bulletin.

At the corresponding date of last year there was much more ice than now thruout the northern districts. In the Red River of the North and in the upper Mississippi and upper Missouri at this date last year the ice generally ranged from 5 to 22 inches; at stations in the Lake region from 1 inch to 8 inches; and in the rivers of New England from 6 to 18 inches.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., DECEMBER 23, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.
	Inches	*Inches*
Arizona.		
Flagstaff	T.	.....
Arkansas.		
Bentonville	T.	.....
Colorado.		
Denver	1	.....
Durango	2	.....
Connecticut.		
Hartford	3	†
New Haven	1	.....
West Simsbury	5	.....
Idaho.		
Pocatello	.....	3.0
Illinois.		
Chicago	4	.....
Hillsboro	5	.....
La Salle	T.	0.0
Monmouth	2	.....
Olney	T.	.....
Peoria	T.	0.0
Winnebago	2	.....
Indiana.		
Knox	8	.....
Lafayette	3	.....
Marion	1	.....
Rockville	T.	.....
Iowa.		
Charles City	T.	.....
Des Moines	.....	1.0
Dubuque	.....	†
Keokuk	2	0.0
Sioux City	.....	*
Kansas.		
Concordia	1	.....
Dodge	2	.....
Horton	T.	.....
Iola	1	0.0
Maine.		
Bangor	1	0.0
Danforth	4	.....
Eastport	T.	4.0
Gardiner	2	0.0
Greenville	3	7.5
Lewiston	4	2.0
Millinocket	4	.....
Orono	3	.....
Portland	1	0.0
Massachusetts.		
Adams	3	.....
Amherst	4	.....
Boston	T.	.....
Fitchburg	5	.....
Mansfield	1	.....
Michigan.		
Alpena	4	0.0
Michigan—Cont'd.		
Calumet	9	.....
Chatham	5	.....
Detroit	2	2.0
Escanaba	2	*
Grand Haven	2	0.0
Grand Marais	8	.....
Grand Rapids	6	.....
Houghton	4	6.5
Lansing	13	.....
Manistee	2	.....
Marquette	6	0.0
Onaway	5	.....
Port Huron	6	5.0
Sault Ste. Marie	1	0.0
South Haven	6	.....
Minnesota.		
Bird Island	2	.....
Duluth	3	6.5
Grand Meadow	1	.....
Hinckley	T.	.....
Lake Crystal	T.	.....
Minneapolis	1	.....
Moorhead	T.	9.0
St. Paul	T.	4.5
Missouri.		
Columbia	4	.....
Hannibal	1	†
Ironton	T.	.....
La Monte	2	.....
Pacific	5	.....
St. Louis	2	0.0
Springfield	1	.....
Montana.		
Kalispell	T.	.....
Miles City	T.	.....
Nebraska.		
Hebron	T.	.....
Imperial	1	.....
St. Paul	T.	.....
New Hampshire.		
Bethlehem	1	.....
Concord	3	0.0
Hanover	4	.....
Keene	4	.....
New York.		
Addison	4	.....
Albany	4	0.0
Binghamton	2	.....
Buffalo	2	0.0
Canton	4	.....
Cooperstown	4	.....
De Ruyter	4	.....
Franklinville	4	.....
New York—Cont'd.		
Herkimer	4	.....
Ithaca	2	.....
Oswego	10	0.0
Philadelphia	4	.....
Plattsburg	4	.....
Rochester	2	0.0
Syracuse	2	.....
Wedgwood	3	.....
North Dakota.		
Bismarck	T.	12.0
Williston	1	12.0
Ohio.		
Garrettsville	T.	.....
Sandusky	T.	3.0
Toledo	T.	0.0
Wauseon	2	.....
Pennsylvania.		
Erie	T.	0.0
St. Marys	2	.....
Scranton	2	.....
Skidmore	1	.....
State College	3	.....
Rhode Island.		
Providence	T.	0.0
South Dakota.		
Huron	.....	6.0
Pierre	.....	1.0
Texas.		
Amarillo	4	.....
Vermont.		
Brattleboro	6	0.0
Burlington	T.	0.0
Northfield	3	.....
St. Johnsbury	2	.....
Virginia.		
Mount Weather	T.	.....
West Virginia.		
Romney	2	.....
Wisconsin.		
Ashland	2	.....
Green Bay	3	7.0
Lake Mills	2	.....
Madison	1	.....
Medford	T.	.....
Milwaukee	3	0.0
Racine	1	.....
Sheboygan	5	.....
Stevens Point	1	.....
Wyoming.		
Cheyenne	2	.....
Lander	5	.....
Sheridan	2	.....
Yellowstone Park	4	.....

* Shore ice. † Floating ice. T. Indicates trace.

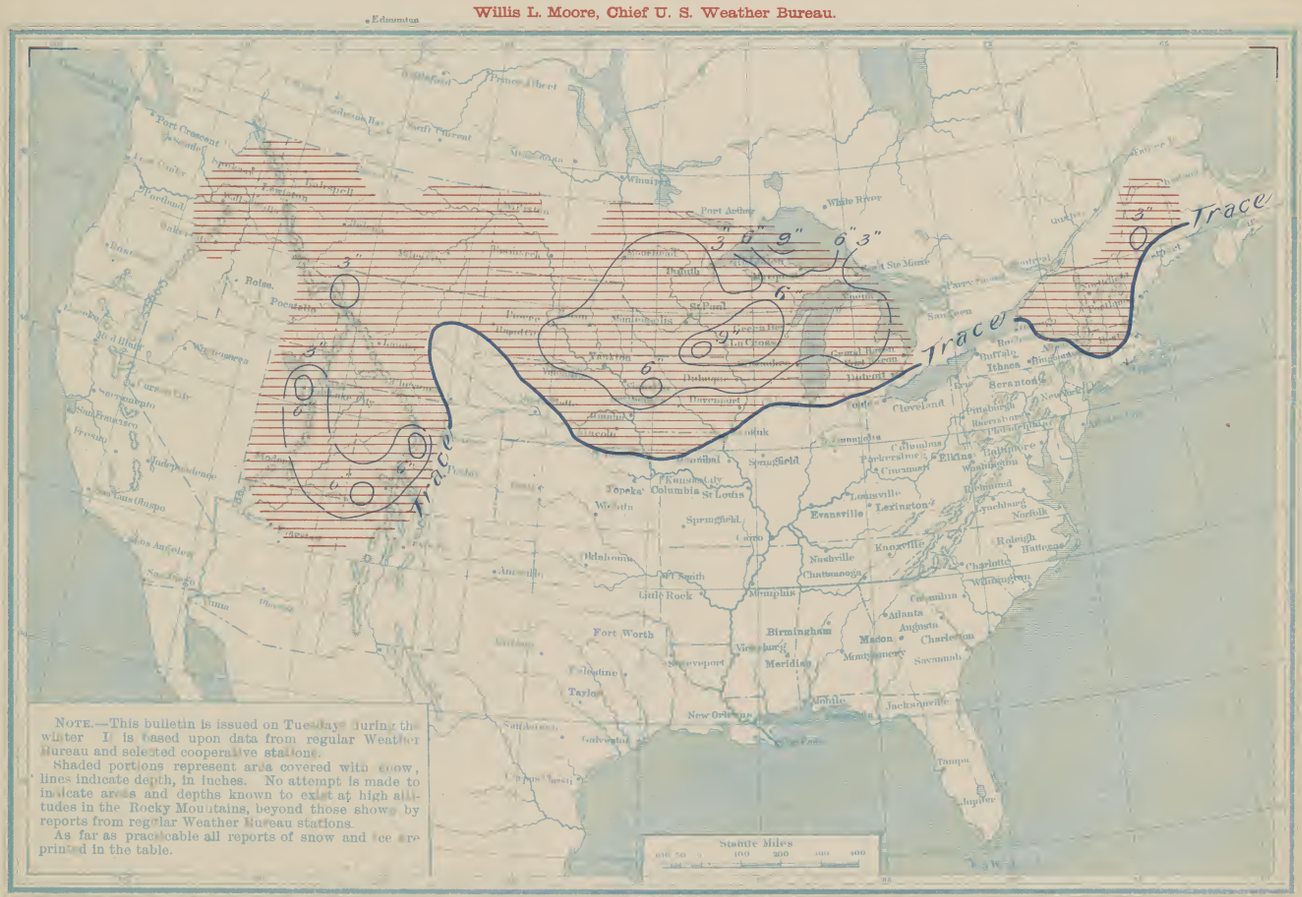
U. S. DEPARTMENT OF AGRICULTURE,

WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.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3"
Note.—This bulletin is issued on Tuesday during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.
Shaded portions represent areas covered with snow, lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.
As far as practicable all reports of snow and ice are printed in the table.
Statute Miles

WASHINGTON, D. C., *January 2, 1908.*

DEPTH OF SNOW.

There was very little snow on the ground at 8 p. m. December 30, 1907, in northern New England and practically none in the middle Atlantic States and lower Lake region. In the upper Lake region and to the westward over the northern portions of the upper Mississippi and Missouri valleys the depths generally ranged from 3 to 9 inches, the greatest being reported from the Upper Michigan Peninsula.

As compared with the depths reported at 8 p. m. on Monday of the previous week an increase is shown over the western portion of the upper Lake region, the northern portion of the upper Mississippi Valley, the Missouri Valley, and portions of the central and northern Rocky Mountain regions. In the central Mississippi Valley and from the lower Michigan Peninsula to the New England coast considerable snow disappeared, leaving a large part of this region free from snow.

Compared with the depths existing at the corresponding date of 1906, a marked decrease is shown over northern New England and in the extreme northern districts from the Upper Michigan Peninsula westward, but in southern Wisconsin, Iowa, South Dakota, and the middle Rocky Mountain region the depths at 8 p. m. December 30, 1907, were considerably greater than at the same date in the previous year.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., December 30, 1907, there was from 4 to 14.5 inches of ice in the upper Missouri River between Pierre, S. Dak., and Williston, N. Dak., with floating ice as far south as Sioux City, Iowa. In the upper Mississippi River it was 6 inches thick at St. Paul, Minn., with floating ice at Dubuque, Iowa. In Duluth Harbor it was 8 inches thick. At most stations on or near the Great Lakes and on the rivers of New England no ice was reported.

The following special reports have been received by telegraph:

Gardiner, Me., December 30.—The Kennebec is open at Gardiner, but there is a thin covering of ice at several points above and below.

Albany, N. Y., December 31.—The snow averages 1 inch in depth in the Mohawk Valley; in the Hudson Valley it ranges from a trace at Athens to 2 inches at Thurman. There is no ice in the Hudson or Mohawk rivers.

Omaha, Nebr., December 30.—Slush ice is running in the river and there is some thin shore ice.

Sioux City, Iowa, December 31.—Shore ice is 2 inches thick, but the channel of the river is open.

Since the 23d instant there has been a slight increase in the thickness of ice in the upper Missouri, Red River of the North, and upper Mississippi rivers and at a few stations in the upper Lake region and the interior of northern New England; elsewhere the situation is practically unchanged.

At the corresponding date of 1906 there was decidedly more ice than now thruout the northern districts, the increase ranging from 1 inch to more than a foot in the upper Missouri; from 3.5 to 7.5 inches in the upper Mississippi, and generally from 4 inches to more than a foot in the rivers of New England.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., DECEMBER 30, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	.....
Colorado.		
Denver	T.	.....
Durango	6	.....
Grand Junction	T.	.....
Leadville	12	.....
Connecticut.		
West Cornwall	T.	.....
West Simsbury	2	.....
Idaho.		
Pocatello	T.	0.0
Illinois.		
Chicago	T.	.....
Monmouth	1	.....
Winnebago	3	.....
Indiana.		
Knox	T.	.....
Iowa.		
Atlantic	2	.....
Carroll	6	.....
Charles City	6	.....
Davenport	1	0.0
Des Moines	1	2.5
Dubuque	3	†
Iowa City	1	.....
Keokuk	T.	0.0
Marshalltown	2	.....
Sioux City	4	2.0
Waterloo	3	.....
Kansas.		
Concordia	T.	.....
Dodge	T.	.....
Ellinwood	T.	.....
Garden City	3	.....
Maine.		
Danforth	1	.....
Eastport	.....	4.0
Greenville	3	10.0
Lewiston	T.	7.0
Millinocket	2	.....
Massachusetts.		
Adams	T.	.....
Amherst	T.	.....
Concord	T.	.....
Fitchburg	T.	.....
Michigan.		
Alpena	3	0.0
Ann Arbor	T.	.....
Battle Creek	2	.....
Big Rapids	4	.....
Calumet	9	.....
Chatham	3	.....
Michigan—Cont'd.		
Detroit	T.	2.0
Escanaba	3	*
Grand Haven	2	0.0
Grand Marais	6	.....
Grand Rapids	1	.....
Houghton	4	7.5
Iron River	T.	.....
Lansing	4	.....
Mackinaw City	2	.....
Mancelona	4	.....
Manistee	5	.....
Maple Ridge	3	.....
Marquette	7	0.0
Port Huron	1	5.0
Sault Ste. Marie	T.	0.0
Minnesota.		
Bird Island	3	.....
Collegeville	4	.....
Duluth	3	8.0
Faribault	3	.....
Grand Meadow	10	.....
Hinckley	4	.....
Lake Crystal	4	.....
Milan	3	.....
Minneapolis	5	.....
Moorhead	3	12.0
Reeds	3	.....
St. Paul	3	6.0
Worthington	3	.....
Missouri.		
Maryville	1	.....
Trenton	T.	.....
Montana.		
Helena	T.	.....
Kalispell	T.	.....
Miles City	T.	.....
Nebraska.		
Brokenbow	T.	.....
Columbus	2	.....
Lincoln	T.	.....
Omaha	1	*†
Pawnee City	T.	.....
St. Paul	2	.....
Tekamah	4	.....
Valentine	3	.....
York	1	.....
New Hampshire.		
Bethlehem	T.	.....
Concord	T.	0.0
Hanover	T.	.....
Keene	T.	.....
New York.	*Inches*	*Inches*
Addison	T.	.....
Albany	T.	0.0
Buffalo	T.	0.0
Canton	T.	.....
Cooperstown	T.	.....
De Ruyter	T.	.....
Franklinville	T.	.....
North Dakota.		
Bismarck	T.	13.5
Williston	1	14.5
Ohio.		
Columbus	T.	0.0
Oregon.		
Baker City	T.	.....
Pennsylvania.		
Towanda	T.	.....
South Dakota.		
Huron	3	8.0
Pierre	2	4.0
Rapid City	1	.....
Yankton	3	0.0
Utah.		
Modena	T.	.....
Salt Lake City	6	.....
Vermont.		
Brattleboro	2	0.0
Burlington	T.	0.0
St. Johnsbury	T.	.....
Washington.		
Spokane	T.	.....
Walla Walla	1	.....
West Virginia.		
Elkins	T.	0.0
Wisconsin.		
Ashland	2	.....
Green Bay	5	5.0
Koepenick	6	.....
La Crosse	7	0.0
Madison	4	.....
Medford	2	.....
Milwaukee	2	0.0
Mount Horeb	5	.....
New London	6	.....
Portage	6	.....
Racine	T.	.....
Sheboygan	4	.....
Viroqua	6	.....
Wyoming.		
Lander	2	.....
Sheridan	T.	.....
Yellowstone Park	5	.....

* Shore ice. † Floating ice. T. indicates trace.

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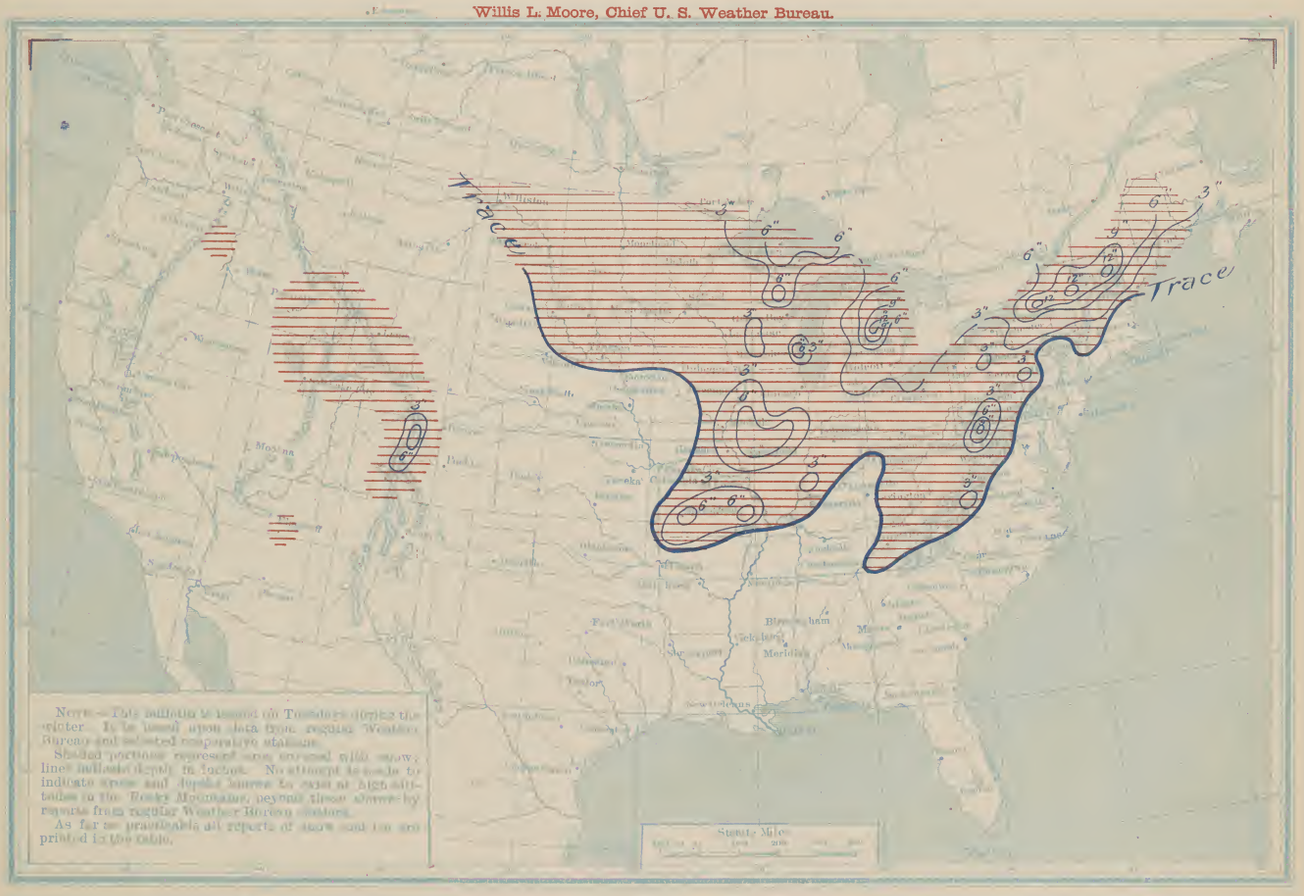

WASHINGTON, D. C., *January 14, 1908.*

DEPTH OF SNOW.

Over the central portions of the country between the Mississippi Valley and the Appalachian Mountains the southern limit of the area covered by snow at 8 p. m. January 13, 1908, was from 200 to more than 400 miles farther south than on the 6th instant. Greater depths were reported from New England and most of the Lake region, where the snow was generally from 1 inch to more than 8 inches deep, some stations in the northern portions of New York and New England reporting depths ranging from 8 to 15 inches. Over the northern districts westward of the upper Lake region the conditions on the two dates mentioned were much the same, but over the Middle Plateau region there was more on the 6th than on the 13th.

At the corresponding date in the previous year the country from the upper Lake region westward to the North Pacific coast, together with the Middle Rocky mountain and Plateau regions, was covered to depths varying from 1 inch to more than 2 feet, the greatest depths being in Montana, the Dakotas, Minnesota, northern Wisconsin, and the upper Michigan penninsula, where they generally exceeded 1 foot, and there was from 1 inch to 14 inches over the greater part of New England. In all of these districts there was much more snow than there is at this date, but in the lower Lake region and over the northern part of the central valleys there was less.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m. January 13, 1908, ice in the upper Missouri River ranged from 10 inches at Pierre, S. Dak., to 19 inches at Bismarck, N. Dak., and 15 inches at Williston, N. Dak., with floating ice from Yankton, S. Dak., to Omaha, Nebr. In the upper Mississippi it was 13 inches thick at St. Paul, Minn., and 11 inches thick at La Crosse, Wis., the river being open at Dubuque, Iowa, and to the southward, with floating ice at Hannibal, Mo. At some stations on or near the Great Lakes the reports generally showed from 4 to 8 inches, 13.5 inches being reported from Duluth Harbor. In the rivers of southern New England there was no ice, but at some inland stations on the rivers of northern New England it ranged from 4 to 10 inches, 16 inches being reported from the southeast arm of Moosehead Lake, in Maine.

The following special reports have been received by telegraph:

Gardiner, Me., January 13.—The ice in the Kennebec River at this point averages 4 inches in thickness, but there is open water above and below.

Albany, N. Y., January 14.—The snow averages 2 inches in depth in the Mohawk Valley; in the Hudson Valley it ranges from a trace at Athens to 6 inches at Thurman. The ice averages 3 inches in thickness in the Hudson River and 2 inches in the Mohawk.

Dubuque, Iowa, January 13.—The river is frozen above the drawbridge, but is open below.

Hannibal, Mo., January 13.—The river is nearly full of thin floating ice.

Omaha, Nebr., January 13.—The river continues open, but there is small ice running.

Sioux City, Iowa, January 14.—There is a little shore and some floating ice here.

Yankton, S. Dak., January 13.—The river channel is thinly frozen in places and there is some shore and slush ice at the place of measurement.

During the past week at all stations reporting ice on the 6th instant there has been an increase ranging from 3 to 4 inches in the western rivers and Lake region and from 1 inch to 4 inches in northern New England.

As compared with the ice conditions at the same period of the preceding year there is now decidedly less ice thruout the northern districts, with the exception of the lower Lake region and the upper Hudson River, where there is now more than on January 13, 1907.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., JANUARY 13, 1907.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	.....
Arkansas.		
Bentonville	4	.....
Colorado.		
Durango	T.	.....
Leadville	9	.....
Idaho.		
Pocatello	1	6.0
Illinois.		
Bloomington	7	.....
Cairo	T.	0.0
Hillsboro	4	.....
La Salle	1	0.0
Minonk	6	.....
Monmouth	8	.....
Olney	1	.....
Peoria	2	0.0
Rushville	6	.....
St. John	1	.....
Springfield	6	.....
Winnebago	2	.....
Indiana.		
Evansville	T.	0.0
Indianapolis	T.	.....
Lafayette	T.	.....
Marion	1	.....
Paoli	T.	.....
Princeton	3	.....
Rockville	T.	.....
Iowa.		
Davenport	4	0.0
Des Moines	.....	4.5
Dubuque	T.	0.0
Forest City	2	.....
Iowa City	1	.....
Keokuk	4	0.0
Sioux City	T.	*†
Kentucky.		
Eubank	T.	.....
Hopkinsville	T.	.....
Lexington	1	.....
Mount Sterling	2	.....
Owensboro	1	.....
Williamsburg	T.	.....
Maine.		
Bangor	2	4.0
Buckfield	3	.....
Cornish	3	.....
Danforth	5	.....
Eastport	T.	8.5
Gardiner	2	4.0
Greenville	6	16.0
Lewiston	2	10.0
Millinocket	6	.....
Orono	T.	.....
Portland	1	0.0
Maryland.		
Grantsville	10	.....
Oakland	6	.....
Massachusetts.		
Adams	1	.....
Michigan.		
Alpena	5	0.0
Ann Arbor	1	.....
Battle Creek	3	.....
Big Rapids	4	.....
Calumet	7	.....
Chatham	2	.....
Detroit	5	4.0
Escanaba	T.	4.0
Grand Haven	2	0.0
Grand Marais	6	.....
Hillsdale	4	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Houghton	6	9.5
Grand Rapids	1	.....
Humboldt	8	.....
Iron Mountain	T.	.....
Lansing	4	.....
Lewiston	8	.....
Mancelona	2	.....
Manistee	2	.....
Maple Ridge	4	.....
Marquette	3	0.0
Port Huron	3	8.5
Saginaw	12	.....
Sault Ste. Marie	1	6.5
South Haven	2	.....
Minnesota.		
Bird Island	1	.....
Collegeville	2	.....
Detroit	2	.....
Duluth	2	13.5
Faribault	T.	.....
Grand Meadow	2	.....
Hinckley	1	.....
Lake Crystal	2	.....
Milan	2	.....
Minneapolis	1	.....
Moorhead	1	19.0
Reeds	T.	.....
St. Paul	T.	13.0
Worthington	1	.....
Missouri.		
Columbia	2	.....
Hannibal	4	†
Ironton	6	.....
La Monte	2	.....
St. Louis	2	0.0
Springfield	7	.....
Nebraska.		
Omaha	.....	†
Valentine	T.	.....
New Hampshire.		
Bethlehem	12	.....
Keene	T.	.....
New York.		
Addison	2	.....
Albany	1	3.0
Buffalo	T.	*
Canton	6	.....
Cooperstown	3	.....
De Ruyter	6	.....
Franklinville	3	.....
Herkimer	3	.....
Ithaca	3	.....
Jamestown	T.	.....
Le Roy	1	.....
Lowville	15	.....
Oswego	3	3.0
Philadelphia	8	.....
Plattsburg	11	.....
Poughkeepsie	T.	.....
Rochester	1	0.0
Rome	4	.....
Saranac Lake	12	.....
Syracuse	6	.....
Watertown	8	.....
Wedgwood	T.	.....
North Carolina.		
Asheville	T.	.....
North Dakota.		
Bismarck	T.	19.0
Devils Lake	T.	.....
Williston	1	15.0
Ohio.		
Cadiz	T.	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Ohio—Cont'd.	*Inches*	*Inches*
Cincinnati	T.	0.0
Cleveland	1	0.0
Columbus	1	0.0
Fredericktown	1	.....
Garrettsville	T.	.....
Greenville	2	.....
Kenton	1	.....
Philo	T.	.....
Sandusky	3	3.5
Tiffin	T.	.....
Toledo	2	0.0
Wauseon	3	.....
Oregon.		
Baker City	T.	.....
Pennsylvania.		
Claysville	T.	.....
Erie	1	3.0
Mifflintown	T.	.....
Pittsburg	T.	†
St. Marys	T.	.....
Scranton	T	.....
Selins Grove	1	.....
Skidmore	T.	.....
South Easton	3	.....
State College	3	.....
Towanda	2	.....
South Dakota.		
Huron	T.	11.0
Pierre	T.	10.0
Yankton	T.	*
Tennessee.		
Chattanooga	T.	0.0
Knoxville	T.	.....
Utah.		
Salt Lake City	2	.....
Vermont.		
Brattleboro	4	3.5
Burlington	8	0.0
Northfield	10	.....
St. Johnsbury	6	.....
Virginia.		
Dale Enterprise	3	.....
Mount Weather	T.	.....
Stephens City	2	.....
Woodstock	1	.....
Wytheville	T.	.....
West Virginia.		
Elkins	1	0.0
Grafton	T.	.....
Huntington	T.	.....
Parkersburg	T.	0.0
Romney	7	.....
Weston	T.	.....
Wisconsin.		
Ashland	1	.....
Eau Claire	2	.....
Grand Rapids	4	.....
Green Bay	2	7.0
Koepenick	6	.....
La Crosse	T.	11.0
Lake Mills	2	.....
Madison	3	.....
Medford	2	.....
Milwaukee	8	0.0
Minocqua	2	.....
New London	T.	.....
Portage	1	.....
Stevens Point	2	.....
Viroqua	1	.....
Wausau	2	.....
Wyoming.		
Lander	1	.....

* Shore ice. † Floating ice. T. Indicates trace.

U. S. DEPARTMENT OF AGRICULTURE,
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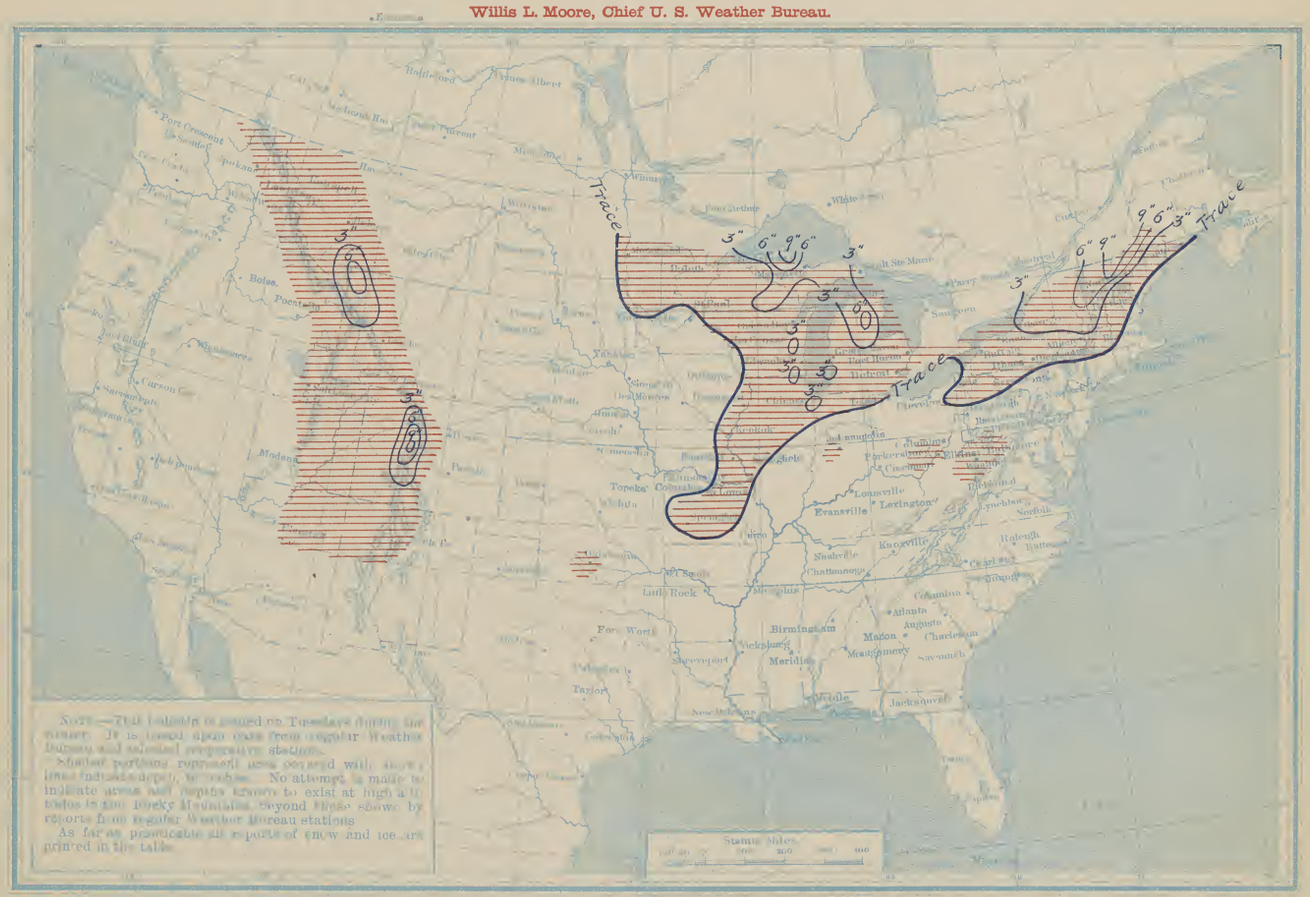

WASHINGTON, D. C., *January 21, 1908.*

DEPTH OF SNOW.

The area covered with snow at 8 p. m., January 20, 1908, was much smaller than at the same hour on the 13th instant, the southern limit from the Mississippi Valley to the Appalachian Mountains having receded northward from 200 to 400 miles, leaving the Ohio Valley and lower Lake region practically free from snow. Slightly increased depths are shown over portions of the interior of northern New England and over the Upper Michigan Peninsula—the only districts east of the Rocky Mountains in which any considerable depths existed—from 6 to 10 inches being reported from northern New England, and from 4 to 9 inches from the central portion of the Upper Michigan Peninsula. The area covered in the central Rocky Mountain region was somewhat greater than on the 13th instant.

Last year at this date there was much more snow than there is now over the northern Plateau, northern Rocky Mountain region, upper Missouri Valley, and upper Lake region, and in portions of New England, but somewhat less in portions of the lower Lake region.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., January 20, 1908, the Missouri River was frozen farther south than at any previous date of the winter, being closed southward to Yankton, S. Dak., with 5 inches of shore ice at Sioux City, Iowa. From Yankton northward the ice ranged from 2 to 18 inches, being thickest at Bismarck. In the upper Mississippi the ice ranged from 9 inches at La Crosse to 14 inches at St. Paul, with shore ice at Hannibal, Mo., and floating ice at St. Louis, Mo.; at stations on or near the Great Lakes generally from 5 to 10 inches, 15 inches being reported from Duluth Harbor; and in the rivers of northern New England from 8 to 12 inches, 16.5 inches being reported from the southeast arm of Moosehead Lake.

The following special reports have been received by telegraph:

Gardiner, Me., January 20.—The mild weather is very unfavorable for the ice crop.

Albany, N. Y., January 21.—The snow averages 2 inches in depth in the Mohawk Valley; in the Hudson Valley it ranges from a trace at Athens to 8 inches at Thurman. The ice averages 5 inches in thickness in the Hudson and Mohawk rivers.

Dubuque, Iowa, January 20.—The river is frozen above the drawbridge, but continues open below.

La Salle, Ill., January 21.—The ice is 2 inches thick at the place of measurement, but there is a narrow channel open in the river.

Hannibal, Mo., January 20.—There was an ice gorge at the bridge on the 17th instant. Shore ice now extends out 50 to 200 yards.

St. Louis, Mo., January 20.—The river is full of light floating ice.

Omaha, Nebr., January 20.—The river continues open, but there is some shore ice on the east bank and small ice is running.

Sioux City, Iowa, January 21.—The ice is 5 inches thick at the place of measurement. Shore ice extends 60 feet from the bank.

Yankton, S. Dak., January 20.—The channel of the river froze over on the morning of the 16th instant.

A few stations show no change or a slight decrease as compared with the measurements made on the 13th instant, but at most stations reporting ice on that date a slight increase is shown.

In the rivers of northern New England, at stations in the upper Lake region and in the upper Mississippi and upper Missouri rivers there is now decidedly less ice than there was at the same date in 1907, but there is somewhat more in the lower Lake region.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., JANUARY 20, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	.....
Colorado.		
Denver	T.	.....
Durango	T.	.....
Grand Junction	1	.....
Leadville	9	.....
Connecticut.		
Hartford	.....	†
West Cornwall	T.	.....
West Simsbury	T.	.....
Illinois.		
Bloomington	T.	.....
Chicago	2	.....
Dixon	2	.....
La Salle	.....	2.0
Minonk	T.	.....
Monmouth	2	.....
Peoria	T.	0.0
Rushville	T.	.....
Springfield	T.	.....
Winnebago	T.	.....
Indiana.		
Auburn	T.	.....
Indianapolis	T.	.....
Knox	3	.....
Iowa.		
Charles City	T.	.....
Davenport	T.	0.0
Des Moines	.....	3.5
Estherville	T.	.....
Keokuk	T.	6.0
Sioux City	.....	5.0
Maine.		
Bangor	.....	9.0
Cornish	2	.....
Eastport	T.	8.0
Gardiner	T.	8.0
Greenville	7	16.5
Lewiston	T.	12.0
Millinocket	10	.....
Orono	2	.....
Massachusetts.		
Adams	1	.....
Michigan.		
Alpena	2	0.0
Ann Arbor	1	.....
Battle Creek	2	.....
Big Rapids	T.	.....
Calumet	9	.....
Chatham	5	.....
Detroit	1	6.0
Escanaba	T.	5.0
Grand Haven	T.	0.0
Grand Rapids	T.	.....
Hillsdale	2	.....
Houghton	6	10.0
Humboldt	9	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Lansing	2	.....
Lewiston	7	.....
Mancelona	3	.....
Manistee	T.	.....
Maple Ridge	4	.....
Marquette	4	0.0
Port Huron	1	9.0
Saginaw	5	.....
Sault Ste. Marie	2	9.0
South Haven	3	.....
Minnesota.		
Collegeville	T.	.....
Duluth	T.	15.0
Grand Meadow	1	.....
Hinckley	T.	.....
Lake Crystal	T.	.....
Milan	1	.....
Minneapolis	T.	.....
Moorhead	T.	19.0
Reeds	T.	.....
St. Paul	.....	14.0
Missouri.		
Hannibal	T.	*
Ironton	T.	.....
La Monte	T.	.....
St. Louis	.....	†
Springfield	T.	.....
Willowsprings	T.	.....
Montana.		
Helena	1	.....
Kalispell	1	.....
Nebraska.		
Omaha	.....	*†
New Hampshire.		
Bethlehem	11	.....
Concord	T.	0.0
Hanover	T.	.....
Keene	T.	.....
New Mexico.		
Santa Fe	T.	.....
New York.		
Addison	1	.....
Albany	T.	4.0
Binghamton	T.	.....
Buffalo	T.	1.5
Canton	5	.....
Cooperstown	3	.....
Franklinville	4	.....
Geneva	T.	.....
Herkimer	2	.....
Ithaca	T.	.....
Jamestown	T.	.....
Keuka Park	2	.....
Malone	8	.....
Oswego	2	5.0
Plattsburg	10	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
New York—Cont'd.	*Inches*	*Inches*
Rochester	T.	4.5
Saratoga	4	.....
Syracuse	4	.....
Watertown	8	.....
Wedgwood	T.	.....
North Dakota.		
Bismarck	T.	18.0
Williston	T.	15.0
Ohio.		
Garrettsville	T.	.....
Philo	T.	.....
Sandusky	.....	6.5
Toledo	T.	0.5
Wauseon	1	.....
Oklahoma.		
Oklahoma	T.	.....
Pennsylvania.		
Erie	.....	5.0
St. Marys	T.	.....
Skidmore	T.	.....
South Dakota.		
Huron	.....	12.0
Pierre	.....	11.0
Yankton	.....	2.0
Utah.		
Salt Lake City	T.	.....
Vermont.		
Brattleboro	3	9.0
Burlington	5	0.0
Northfield	7	.....
St. Johnsbury	6	.....
Washington.		
Spokane	T.	.....
West Virginia.		
Elkins	T.	0.0
Parkersburg	T.	0.0
Romney	3	.....
Wisconsin.		
Ashland	1	.....
Green Bay	T.	6.0
Koepenick	4	.....
La Crosse	.....	9.0
Lake Mills	T.	.....
Madison	2	.....
Medford	1	.....
Milwaukee	2	0.0
Mount Horeb	1	.....
Portage	T.	.....
Racine	4	.....
Sheboygan	4	.....
Stevens Point	2	.....
Viroqua	T.	.....
Wausau	T.	.....
Wyoming.		
Lander	2	.....
Yellowstone Park	8	.....

* Shore ice. † Floating ice. T. indicates trace.

U. S. DEPARTMENT OF AGRICULTURE.

WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.

NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations. Shaded portions represent area covered with snow, with indicated depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in this table.

WASHINGTON, D. C., *January 28, 1908.*

DEPTH OF SNOW.

The area covered with snow at 8 p. m., January 27, 1908, was somewhat greater than that on the 20th instant, the southern limit extending from 100 to 200 miles farther south over the upper Ohio Valley and Middle Atlantic States. Increased depths, as compared with those on the 20th, are generally shown, except in northern New England, where considerable snow has melted, and in the central Mississippi Valley, where the light covering shown on the map accompanying last week's bulletin has disappeared. The greatest depth now exists in northern New York, where over a limited area it ranges from 18 to 30 inches. The northeastern portion of the Lower Michigan Peninsula and portions of the Upper Michigan Peninsula and northern Wisconsin are covered to depths ranging from 6 to more than 12 inches.

At the corresponding date of last year all northern and central districts eastward of the Rocky Mountains were covered and there was from 1 foot to more than 2 feet of snow from eastern Montana to the upper Lake region and in northern New England, and the southern limit of snow extended southward into Arkansas, Tennessee, and North Carolina.

ICE IN RIVERS, HARBORS, ETC.

The mean temperature during the greater part of the week ending the 27th was above the normal, the excess being very decided on Tuesday, Saturday, and Sunday in the Lake region and to the westward, and on Monday in New England and the Middle Atlantic States. The lowest temperature in the upper Missouri and Red River of the North valleys occurred on Thursday and Monday; in the upper Mississippi Valley and upper Lake region on Thursday, Friday, and Monday, and in the lower Lake region, Ohio Valley, Middle Atlantic States, and New England on Friday and Saturday. For midwinter the conditions of the week ending with Monday, the 27th instant, were not especially favorable for the formation of ice. A slight increase, however, as compared with measurements made on the 20th is shown at most stations reporting ice on the latter date, altho at some there was no change and at a few in northern New England there was a decrease.

At 8 p. m., January 27, 1908, ice in the Missouri River ranged from 4 inches at Yankton, S. Dak., to 20 inches at Bismarck, N. Dak., with floating ice southward to Kansas City, Mo.; in the Mississippi River there was a nearly uniform thickness of 14 inches from La Crosse, Wis., to St. Paul, Minn., with 5 inches of shore ice at Hannibal, Mo., and floating ice southward to St. Louis, Mo.; at stations on or near the Great Lakes, generally from 3 to 11 inches, with 16 inches in Duluth Harbor; and in the rivers of New England, from 4 to 13 inches, with 18 inches in the southeastern arm of Moosehead Lake.

The following special reports have been received by telegraph:

Gardiner, Me., January 27.—The mild weather and the rain have wasted all the snow in the Kennebec Valley. The ice varies from 1 inch to 8 inches in thickness, with considerable open water.

Albany, N. Y., January 28.—The snow averages 2 inches in depth in the Mohawk Valley; in the Hudson Valley it ranges from a trace at Athens to 8 inches at Thurman. The ice averages 6.5 inches in thickness in the Hudson River and 7.5 inches in the Mohawk.

Parkersburg, W. Va., January 28.—There is heavy running ice in the river this morning.

Alpena, Mich., January 27.—Three inches of ice formed last Saturday, but it was forced out of the bay to-day by brisk northwest winds.

La Salle, Ill., January 28.—There is an ice gorge above the Burlington bridge, but the channel is open below.

Dubuque, Iowa, January 27.—The river is still open below the drawbridge, but it is frozen above.

Hannibal, Mo., January 27.—The ice is 5 inches thick at the place of measurement; the river channel remains open, but it is partly filled with heavy floating ice.

Omaha, Nebr., January 27.—The river is full of light floating ice.

Sioux City, Iowa, January 28.—The ice is 12 inches thick at the point of measurement, but the channel of the river is open.

Except at a few stations in the lower Lake region, Middle Atlantic States, and central Mississippi Valley, there is now decidedly less ice in all northern districts east of the Rocky Mountains than there was at the corresponding date of last year.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., JANUARY 27, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	T.	
Colorado.		
Durango	T.	
Grand Junction	T.	
Leadville	13	
Connecticut.		
Hartford	T.	†
West Simsbury	2	
Delaware.		
Millsboro	1	
Newark	1	
Illinois.		
Chicago	1	
Dixon	T.	
Monmouth	T.	
Peoria		2.5
Springfield	T.	
Indiana.		
Auburn	2	
Indianapolis	T.	
Knox	6	
Lafayette	T.	
Marion	2	
Iowa.		
Albia	T.	
Creston	T.	
Davenport		†
Des Moines	T.	6.0
Dubuque	T.	0.0
Keokuk	T.	6.0
Sioux City		12.0
Waterloo	T.	
Kentucky.		
Catlettsburg	T.	
Maine.		
Bangor		11.0
Buckfield	T.	
Eastport		4.5
Gardiner		4.5
Greenville	1	18.0
Lewiston		13.0
Maryland.		
Baltimore	T.	0.0
Grantsville	6	
Oakland	6	
Massachusetts.		
Adams	T.	
Boston	T.	
Fitchburg	T.	
Mansfield	T.	
Nantucket	T.	0.0
North Adams	1	
Michigan.		
Alpena	7	0.0
Ann Arbor	1	
Battle Creek	3	
Big Rapids	3	
Calumet	16	
Carsonville	4	
Chatham	8	
Detroit	T.	8.0
Escanaba	1	11.0
Grand Haven	3	0.0
Grand Marais	6	
Grand Rapids	4	
Hillsdale	4	
Houghton	9	11.5
Iron Mountain	2	
Lansing	4	
Lewiston	13	
Mancelona	4	
Manistee	2	

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Maple Ridge	7	
Marquette	13	0.0
Port Huron	3	10.5
Sault Ste. Marie	4	11.0
St. Ignace	4	
South Haven	5	
Minnesota.		
Bird Island	T.	
Collegeville	2	
Duluth	2	16.0
Faribault	1	
Grand Meadow	T.	
Hinckley	2	
Lake Crystal	T.	
Milan	1	
Minneapolis	2	
Moorhead	1	20.0
Reeds	2	
St. Paul	1	14.5
Worthington	T.	
Missouri.		
Hannibal		5.0
Kansas City		†
St. Louis		†
Montana.		
Helena	T.	
Kalispell	T.	
Nebraska.		
Omaha		†
Nevada.		
Tonopah	5	
Winnemucca	T.	
New Hampshire.		
Bethlehem	4	
Keene	T.	
New Jersey.		
Flemington	1	
Hightstown	2	
Tuckerton	2	
New York.		
Albany	T.	6.0
Binghamton	2	
Buffalo	1	3.0
Canton	8	
Cooperstown	3	
Cutchogue	1	
Franklinville	7	
Herkimer	1	
Ithaca	2	
Jamestown	3	
Keuka Park	3	
Lake Placid	30	
New York	4	
Oswego	6	0.0
Plattsburg	6	
Rochester	6	6.0
Saranac Lake	18	
Syracuse	1	
Watertown	6	
Wedgwood	3	
North Dakota.		
Bismarck	T.	20.0
Devils Lake	T.	
Williston	T.	15.0
Ohio.		
Cleveland	2	0.0
Columbus	T.	4.0
Garrettsville	1	
Greenville	T.	
Philo	T.	
Sandusky	3	6.5
Tiffin	1	

Stations.	Snow.	Ice in rivers, harbors, etc.
Ohio—Cont'd.	*Inches*	*Inches*
Toledo	1	3.5
Wauseon	2	
Pennsylvania.		
Claysville	1	
Easton	T.	
Erie	T.	5.0
Gettysburg	T.	
Greenville	1	
Harrisburg	T.	0.0
Mifflintown	T.	
Philadelphia	1	0.0
Pittsburg	1	†
St. Marys	5	
Scranton	T.	
Selins Grove	1	
Skidmore	1	
Somerset	6	
South Eaton	5	
State College	T.	
Rhode Island.		
Block Island	T.	0.0
Kingston	T.	
Narragansett	T.	
Providence	T.	0.0
South Dakota.		
Huron		12.5
Pierre		12.0
Yankton		4.0
Utah.		
Modena	1	
Salt Lake City	T.	
Vermont.		
Brattleboro	2	10.0
Burlington	1	0.0
Northfield	2	
St. Johnsbury	4	
Virginia.		
Dale Enterprise	T.	
Stephens City	T.	
Woodstock	T.	
Washington.		
Spokane	T.	
West Virginia.		
Elkins	1	0.0
Grafton	2	
New Martinsville	1	
Parkersburg	T.	0.0
Romney	T.	
Weston	2	
Wisconsin.		
Ashland	2	
Eau Claire	3	
Grand Rapids	3	
Green Bay	4	6.0
Koepenick	8	
La Crosse	T.	14.0
Lake Mills	2	
Madison	1	
Medford	T.	
Milwaukee	2	0.0
Minocqua	4	
Mount Horeb	1	
New London	8	
Portage	T.	
Racine	2	
Stevens Point	4	
Viroqua	T.	
Wausau	4	
Wyoming.		
Lander	1	
Yellowstone Park	6	

* Shore ice. † Floating ice. T. indicates trace.

NOTE.—Table headings for January 6th and 13th should read *1908.*

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WEATHER BUREAU.

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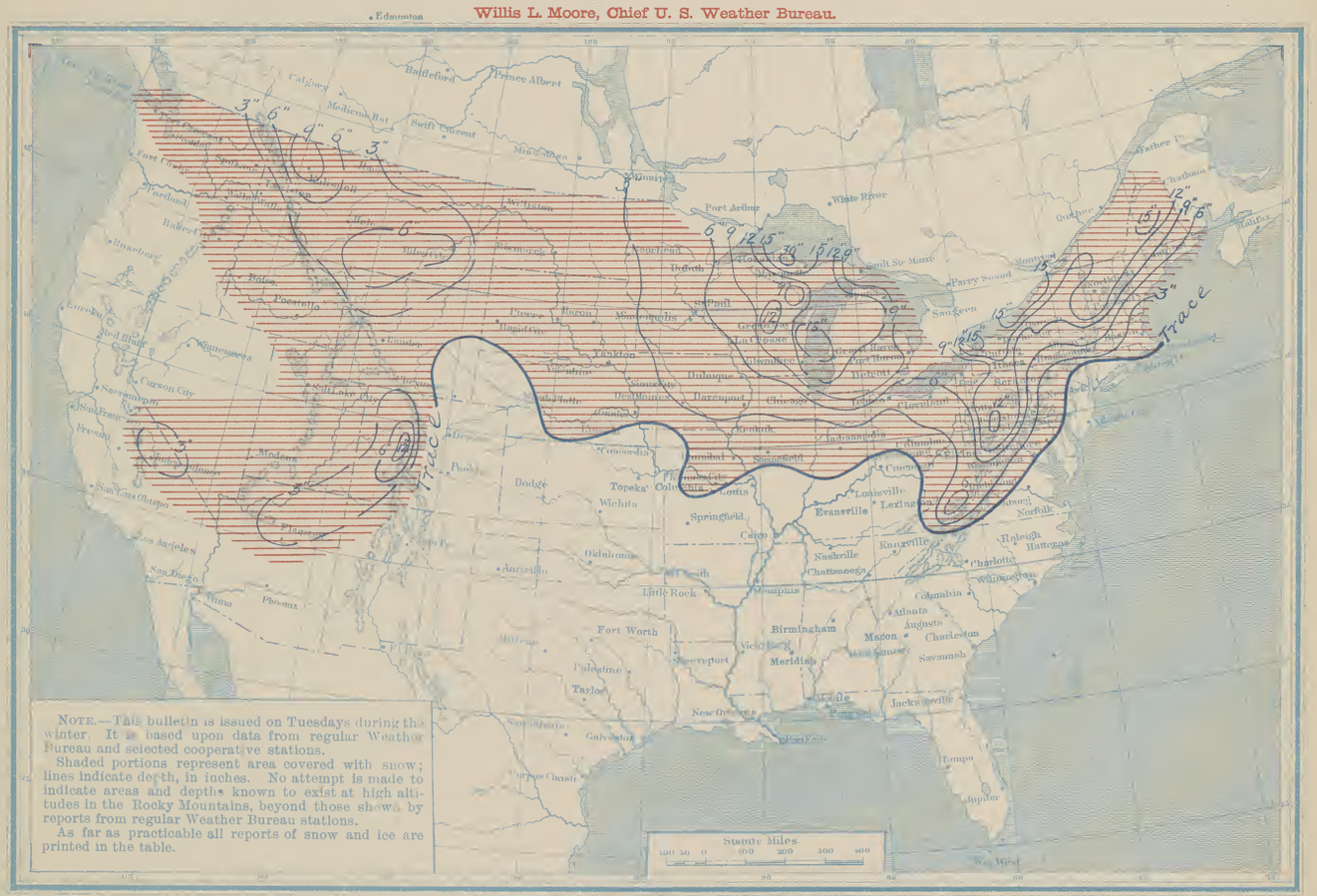

NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent area covered with snow; lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *February 4, 1908.*

DEPTH OF SNOW.

The central and northern Rocky Mountain regions and the northern districts to the eastward were covered with snow at 8 p. m., February 3, 1908, the greater part of the Lake region and New England and the mountainous portions of the Middle Atlantic States having depths generally ranging from 6 to 12 inches, and limited areas in the Lake region from 12 to 20 inches. The greatest depth, 32 inches, was reported from Humboldt, in the Upper Michigan Peninsula. Except on the middle Atlantic coast, where there was somewhat less snow than was reported on the 27th, there has been a general increase since that date, a large area embracing the upper Missouri Valley and a part of the northern Rocky Mountain region, which was free from snow on the 27th ultimo, being covered to depths ranging from 1 inch to 7 inches. The southern limit to the eastward of the lower Missouri Valley was generally farther south than on the 27th, and over the greater part of the area eastward of the upper Mississippi Valley the depths were from 6 to 12 inches greater than were reported last week. The increase over the northern Rocky Mountain region generally ranged from 1 inch to 6 inches.

Westward of the upper Lakes and over the greater part of the New England coast there is now much less snow than there was at the corresponding date of the preceding year, but considerably more in the lower Lake region and over the interior portions of the Middle Atlantic States and New England.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., February 3, 1908, ice in the Missouri River generally ranged from 1.5 to 22 inches and the river was frozen thruout nearly its entire length, 6 inches being reported from Kansas City, Mo. The Mississippi was frozen northward of Hannibal, Mo., where the ice was 8 inches thick, the greatest thickness existing between La Crosse, Wis., and St. Paul, Minn., where it was about 15 inches. Floating ice was reported from all stations on the Ohio River from Pittsburg, Pa., to Cairo, Ill., and ice was 1.5 inches thick in the James River at Richmond, Va. At stations on or near the Great Lakes, ice generally ranged from 8 to 18 inches, 21 inches being reported from Duluth Harbor, and in the rivers of northern New England from 10 to 14 inches, 23 inches being reported from Moosehead Lake.

With the mean temperature generally much below freezing thruout the week in the extreme northern districts, the formation of ice was greater than in any previous week of this winter. As compared with the measurements made at 8 p. m. on Monday of the preceding week, nearly all reporting stations show an increase, and the difference generally ranges from 1 inch to 10 inches in the Missouri; from 1 inch to 5 inches in the upper Mississippi River and in the Lake region, and from 3 to 9 inches in northern New England.

The following special reports have been received by telegraph:

Albany, N. Y., February 4.—The snow averages 9 inches in depth in the Mohawk Valley; in the Hudson Valley it ranges from 5 inches at Athens to 22 inches at Thurman. The ice averages 11 inches in thickness in the Hudson River and 12 inches in the Mohawk.

Harrisburg, Pa., February 3.—The west channel of the river is frozen over, but the main channel is still open.

Pittsburg, Pa., February 3.—There is heavy running ice in the river.

Parkersburg, W. Va., February 4.—There is heavy running ice in the river.

Cincinnati, Ohio, February 3.—The river is two thirds full of heavy ice.

Louisville, Ky., February 3.—The river is two thirds full of heavy floating ice.

Evansville, Ind., February 4.—There is light running ice in the river.

Dubuque, Iowa, February 3.—The ice measures 14 inches above the drawbridge, but is only 5 inches thick below the bridge, where measurements are usually made.

Hannibal, Mo., February 3.—An ice gorge formed on the morning of the 2d.

St. Louis, Mo., February 3.—The river is full of light floating ice.

Cairo, Ill., February 4.—Heavy ice continues in the Mississippi River and the ice in the Ohio is becoming heavier.

Omaha, Nebr., February 3.—The river closed on the 2d instant.

Sioux City, Iowa, February 4.—The channel of the river has closed.

There is now decidedly less ice than there was at the corresponding date of 1907 in northern New England, the upper Lake region, the upper Mississippi River north of Davenport, Iowa, and the Missouri northward of Kansas City, Mo., but in the rivers of the Middle Atlantic States and at stations on the lower Lakes and Ohio and central Mississippi rivers there is somewhat more.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., FEBRUARY 3, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	4	.....
California.		
Independence	4	.....
Colorado.		
Durango	5	.....
Grand Junction	1	.....
Leadville	12	.....
Connecticut.		
Hartford	T.	†
West Simsbury	3	.....
Delaware.		
Millsboro	T.	.....
Dist. of Columbia.		
Washington	T.	2.0
Idaho.		
Boise	T.	.....
Pocatello	1	5.0
Illinois.		
Cairo	.....	†
Chicago	6	.....
Dixon	2	.....
La Salle	4	8.0
Monmouth	1	.....
Peoria	T.	9.0
Springfield	T.	.....
Winnebago	4	.....
Indiana.		
Evansville	.....	†
Indianapolis	T.	.....
Knox	6	.....
Lafayette	1	.....
Iowa.		
Charles City	5	.....
Davenport	3	5.5
Des Moines	3	9.0
Dubuque	5	5.0
Iowa City	7	.....
Keokuk	T.	10.0
Sioux City	1	14.0
Waterloo	4	.....
Kansas.		
Iola	.....	2.0
Kentucky.		
Louisville	.....	†
Maine.		
Bangor	7	14.0
Buckfield	9	.....
Cornish	8	.....
Eastport	4	14.0
Gardiner	4	10.0
Greenville	11	23.0
Lewiston	6	16.0
Millinocket	21	.....
Portland	3	0.0
Maryland.		
Baltimore	T.	2.0
Grantsville	18	.....
Massachusetts.		
Amherst	2	.....
Boston	T.	.....
Fitchburg	4	.....
Mansfield	1	.....
North Adams	7	.....
Michigan.		
Alpena	16	6.0
Ann Arbor	6	.....
Battle Creek	11	.....
Big Rapids	12	.....
Calumet	18	.....
Carsonville	5	.....
Detroit	10	10.0
Escanaba	7	18.0
Grand Haven	15	0.0
Grand Rapids	11	.....
Houghton	14	12.5
Humboldt	32	.....
Michigan—Cont'd.		
Iron Mountain	7	.....
Lansing	10	.....
Manistee	12	.....
Maple Ridge	14	.....
Marquette	17	1.0
Port Huron	8	12.5
Sault Ste. Marie	8	14.0
St. Ignace	5	.....
South Haven	14	.....
Minnesota.		
Alexandria	2	.....
Collegeville	4	.....
Duluth	4	21.0
Faribault	4	.....
Hinckley	3	.....
Lake Crystal	5	.....
Milan	3	.....
Minneapolis	4	.....
Moorhead	2	26.0
Reeds	5	.....
St. Paul	4	15.0
Worthington	1	.....
Missouri.		
Columbia	T.	.....
Hannibal	1	8.0
Kansas City	.....	6.0
St. Louis	.....	†
Montana.		
Havre	2	.....
Helena	4	.....
Kalispell	10	.....
Miles City	6	.....
Nebraska.		
Lincoln	1	.....
Minden	2	.....
Omaha	T.	1.5
St. Paul	1	.....
Valentine	T.	.....
Nevada.		
Tonopah	3	.....
New Hampshire.		
Bethlehem	12	.....
Concord	5	5.0
Durham	1	.....
Keene	4	.....
New Jersey.		
Cape May	T.	5.0
New York.		
Addison	7	.....
Albany	5	10.0
Binghamton	4	.....
Buffalo	21	7.5
Canton	16	.....
Cooperstown	7	.....
Herkimer	8*	.....
Ithaca	6	.....
New York	T.	.....
Oswego	20	8.0
Plattsburg	12	.....
Rochester	12	8.0
Rome	12	.....
Syracuse	7	.....
Watertown	14	.....
Wedgwood	15	.....
North Dakota.		
Bismarck	1	22.0
Devils Lake	1	.....
Williston	T.	15.0
Ohio.		
Cadiz	2	.....
Cincinnati	.....	†
Cleveland	4	5.0
Columbus	T.	7.0
Fredericktown	5	.....
Garrettsville	5	.....
Kenton	T.	.....
Ohio—Cont'd.		
Philo	2	.....
Sandusky	3	10.0
Toledo	4	9.0
Wauseon	9	.....
Oregon.		
Baker City	T.	.....
Portland	1	0.0
Pennsylvania.		
Claysville	3	.....
Ephrata	2	.....
Erie	6	9.5
Gettysburg	4	.....
Harrisburg	5	*
Mifflintown	9	.....
Philadelphia	.....	3.0
Pittsburg	2	†
St. Marys	10	.....
Scranton	1	.....
State College	10	.....
Towanda	4	.....
Rhode Island.		
Narragansett	T.	.....
Providence	T.	3.0
South Dakota.		
Huron	2	14.5
Pierre	1	17.0
Rapid City	1	.....
Yankton	2	14.0
Utah.		
Modena	1	.....
Salt Lake City	T.	.....
Vermont.		
Brattleboro	9	14.0
Burlington	7	5.0
Northfield	14	.....
St. Johnsbury	16	.....
Virginia.		
Fredericksburg	1	.....
Lynchburg	3	0.0
Mount Weather	3	.....
Richmond	.....	1.5
Stephens City	4	.....
Wytheville	7	.....
Washington.		
Seattle	1	.....
Spokane	2	.....
Tacoma	2	.....
Tatoosh Island	T.	.....
Walla Walla	2	.....
West Virginia.		
Elkins	3	0.0
Grafton	2	.....
New Martinsville	2	.....
Parkersburg	T.	†
Weston	2	.....
Wisconsin.		
Ashland	8	.....
Grand Rapids	9	.....
Green Bay	10	10.0
Koepenick	14	.....
La Crosse	4	15.5
Lake Mills	7	.....
Madison	6	.....
Medford	7	.....
Milwaukee	8	0.0
New London	14	.....
Portage	10	.....
Racine	12	.....
Sheboygan	20	.....
Stevens Point	7	.....
Viroqua	5	.....
Wausau	8	.....
Wyoming.		
Lander	1	.....
Sheridan	4	.....
Yellowstone Park	7	.....

* Shore ice. † Floating ice. T. indicates trace.

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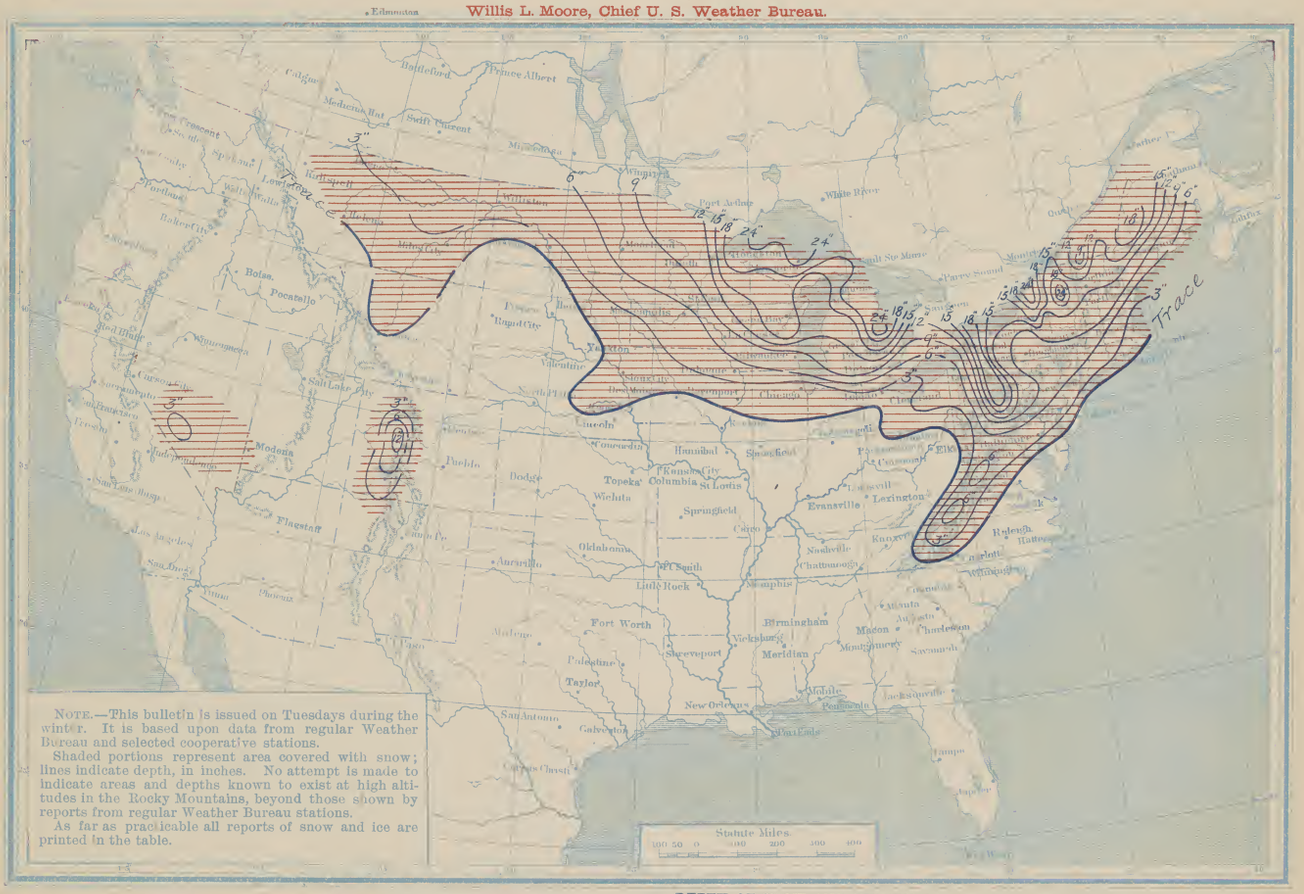
PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.



NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent area covered with snow; lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *February 11, 1908.*

DEPTH OF SNOW.

The mountainous portions of North Carolina and Virginia and the northern districts from the middle Atlantic and New England coasts westward to Montana were covered with snow at 8 p. m., February 10, 1908. The depths were greatest over the northern portion of the upper Lake region, western Pennsylvania, western and northern New York, and the interior of New England, where they generally ranged from 12 to 24 inches. The central Mississippi and the lower Missouri and lower Ohio valleys were entirely free from snow, the southern limit to the northward of these districts being from 100 to 150 miles farther north than on the 3d instant. Over the southern portion of the Lake region the depths, as compared with those reported on the 3d, were somewhat less, but elsewhere in the northern districts eastward of the upper Missouri Valley they were generally greater.

The depths at 8 p. m., February 10, 1908, as compared with those of the same date last year, were much greater over the southern part of the upper Lake region and the eastern part of the lower Lake region, and somewhat greater over portions of the Middle Atlantic States and the upper Mississippi Valley. Along the New England and middle Atlantic coasts and generally to the westward of the Upper Michigan Peninsula there was much less snow than at the same date last year.

ICE IN RIVERS, HARBORS, ETC.

The daily mean temperatures were above freezing on Tuesday and Wednesday in the central Mississippi Valley, on Wednesday in the Ohio Valley, on Thursday and Friday in the Middle Atlantic States, and on Sunday and Monday in the lower Missouri Valley. On other days of the week ending with Monday the daily means in the districts named ranged from 2° to 16° below freezing. At no time during the week were the daily means above freezing in the northern border districts from the upper Missouri Valley to the New England coast, and during most of the week they were from 10° to 30° or more below freezing. Under these conditions there was a general increase in ice formation thruout the northern portions of the country, especially in the lower Lake region, the northern part of the Middle Atlantic States, and in New England, where it generally ranged from 2 to 8 inches. In the upper Lake region and the upper Mississippi and Missouri valleys the increase was less marked and ranged from 1 inch to 3 inches, except at a few stations where there was no change.

At 8 p. m., February 10, 1908, ice in the Missouri River from Kansas City, Mo., northward ranged from 4 to 24 inches; in the upper Mississippi River northward of Hannibal, Mo., from 8 to 16.5 inches; at stations on or near the Great Lakes, from 6 to 18 inches, 21 inches being reported from Duluth Harbor; in rivers of the Middle Atlantic States, from 2 to 8 inches, and in those of New England from 5 to 22 inches, 24 inches being reported from Moosehead Lake.

The following special reports have been received by telegraph:

Brattleboro, Vt., February 10.—Ice is being harvested.

Albany, N. Y., February 11.—The snow averages 11 inches in depth in the Hudson Valley; in the Mohawk Valley it ranges from 6 inches at Cohoes to 22 inches at Utica. The ice averages 14 inches in thickness in the Hudson River and 13 inches in the Mohawk.

Parkersburg, W. Va., February 10.—The river is full of heavy running ice.

Cincinnati, Ohio, February 10.—The river is one-third full of very light ice.

St. Louis, Mo., February 10.—There is heavy floating ice near the west bank of the river.

Kansas City, Mo., February 10.—The ice gorge below the city broke last night; the river is now open in places and some ice is moving out.

In the lower Lake region and Middle Atlantic States there is now considerably more ice than there was at the corresponding date of last year; there is much less in the upper Lake region and in the upper Mississippi and Missouri rivers and somewhat less in New England.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., FEBRUARY 10, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
	Inches	*Inches*
Arizona.		
Flagstaff	8	.....
Colorado.		
Durango	5	.....
Leadville	12	.....
Connecticut.		
Hartford	5	†
New Haven	4	.....
Delaware.		
Newark	2	.....
Dist. of Columbia.		
Washington	3	3.0
Illinois.		
Chicago	1	.....
La Salle	2	9.0
Monmouth	T.	.....
Peoria	.....	6.0
Winnebago	4	.....
Indiana.		
Knox	2	.....
Marion	1	.....
Iowa.		
Charles City	4	.....
Davenport	1	8.0
Des Moines	T.	9.0
Dubuque	5	6.0
Forest City	4	.....
Keokuk	.....	11.0
Sioux City	T.	14.0
Maine.		
Bangor	9	16.0
Cornish	14	.....
Danforth	18	.....
Eastport	4	22.0
Gardiner	6	14.0
Greenville	20	24.0
Lewiston	10	17.0
Portland	8	0.0
Maryland.		
Baltimore	3	8.5
Oakland	6	.....
Massachusetts.		
Adams	12	.....
Boston	1	.....
Concord	3	.....
Fitchburg	8	.....
Mansfield	2	.....
Nantucket	.....	6.0
North Adams	6	.....
Michigan.		
Alpena	19	8.0
Ann Arbor	9	.....
Battle Creek	10	.....
Big Rapids	12	.....
Calumet	27	.....
Carsonville	24	.....
Chatham	14	.....
Detroit	12	14.0
Escanaba	13	18.0
Grand Haven	10	2.0
Grand Marais	18	.....
Grand Rapids	10	.....
Hillsdale	10	.....
Houghton	21	14.5
Iron Mountain	14	.....
Lansing	12	.....
Mancelona	20	.....
Manistee	15	.....
Maple Ridge	28	.....
Marquette	24	2.0
Port Huron	7	15.0
Sault Ste. Marie	16	16.5
St. Ignace	15	.....
South Haven	15	.....
Minnesota.		
Bird Island	2	.....
Collegeville	6	.....
Minnesota—Cont'd.		
Detroit	6	.....
Duluth	11	21.0
Faribault	4	.....
Grand Meadow	6	.....
Hinckley	7	.....
Milan	4	.....
Minneapolis	6	.....
Moorhead	8	27.0
Reeds	7	.....
St. Paul	5	15.0
Worthington	2	.....
Missouri.		
Hannibal	.....	8.0
Kansas City	.....	4.0
St. Louis	.....	†
Montana.		
Havre	3	.....
Helena	T.	.....
Kalispell	2	.....
Miles City	5	.....
Nebraska.		
Omaha	T.	5.0
St. Paul	1	.....
Tekamah	1	.....
Valentine	T.	.....
Nevada.		
Tonopah	3	.....
New Hampshire.		
Bethlehem	14	.....
Concord	9	11.5
Durham	6	.....
Hanover	10	.....
Keene	7	.....
New Jersey.		
Belvidere	5	.....
Bridgeton	3	.....
Cape May	T.	7.0
Charlotteburg	6	.....
Flemington	3	.....
Hightstown	3	.....
New York.		
Albany	9	13.0
Binghamton	8	.....
Buffalo	25	13.5
Canton	14	.....
Cooperstown	10	.....
Cutchogue	2	.....
De Ruyter	30	.....
Franklinville	20	.....
Geneva	2	.....
Herkimer	10	.....
Ithaca	6	.....
Keuka Park	10	.....
Malone	16	.....
New York	3	.....
Ogdensburg	24	.....
Oswego	15	11.0
Poughkeepsie	6	.....
Rochester	16	8.0
Saranac Lake	36	.....
Southampton	T.	.....
Syracuse	9	.....
Watertown	24	.....
Wedgwood	17	.....
North Carolina.		
Asheville	4	.....
Charlotte	2	.....
North Dakota.		
Bismarck	T.	24.0
Devils Lake	4	.....
Williston	3	15.0
Ohio.		
Cadiz	1	.....
Cincinnati	.....	†
Cleveland	2	6.0
Columbus	T.	9.0
Ohio—Cont'd.		
Fredericktown	5	.....
Garrettsville	4	.....
Greenville	T.	.....
Sandusky	.....	13.0
Toledo	2	8.5
Wauseon	7	.....
Pennsylvania.		
Claysville	1	.....
Confluence	4	.....
Ephrata	7	.....
Erie	3	12.5
Gordon	13	.....
Harrisburg	8	8.0
Johnstown	14	.....
Marion	13	.....
Mifflintown	18	.....
Parker	14	.....
Philadelphia	2	5.0
Pittsburg	3	†
St. Marys	18	.....
Scranton	3	.....
South Eaton	7	.....
Towanda	7	.....
Rhode Island.		
Block Island	T.	4.0
Kingston	2	.....
Narragansett	T.	.....
Providence	1	5.0
South Dakota.		
Huron	1	14.5
Pierre	.....	19.0
Yankton	.....	13.5
Utah.		
Modena	T.	.....
Vermont.		
Brattleboro	10	19.0
Burlington	6	14.0
Northfield	15	.....
St. Johnsbury	14	.....
Virginia.		
Dale Enterprise	7	.....
Fredericksburg	1	.....
Lynchburg	1	2.0
Mount Weather	4	.....
Richmond	.....	2.0
Stephens City	5	.....
Woodstock	5	.....
Wytheville	6	.....
Washington.		
Spokane	T.	.....
West Virginia.		
Elkins	T.	7.0
Parkersburg	.....	†
Romney	5	.....
Wisconsin.		
Ashland	18	.....
Eau Claire	12	.....
Grand Rapids	13	.....
Green Bay	16	13.0
Koepenick	16	.....
La Crosse	5	16.5
Lake Mills	9	.....
Madison	6	.....
Medford	17	.....
Milwaukee	6	0.0
Minocqua	12	.....
New London	16	.....
Portage	14	.....
Racine	8	.....
Sheboygan	15	.....
Stevens Point	12	.....
Viroqua	9	.....
Wausau	16	.....
Wyoming.		
Lander	T.	.....
Sheridan	T.	.....

† Floating ice. T. indicates trace.

Feb. 18, 1908

U. S. DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU.

SNOW AND ICE BULLETIN.

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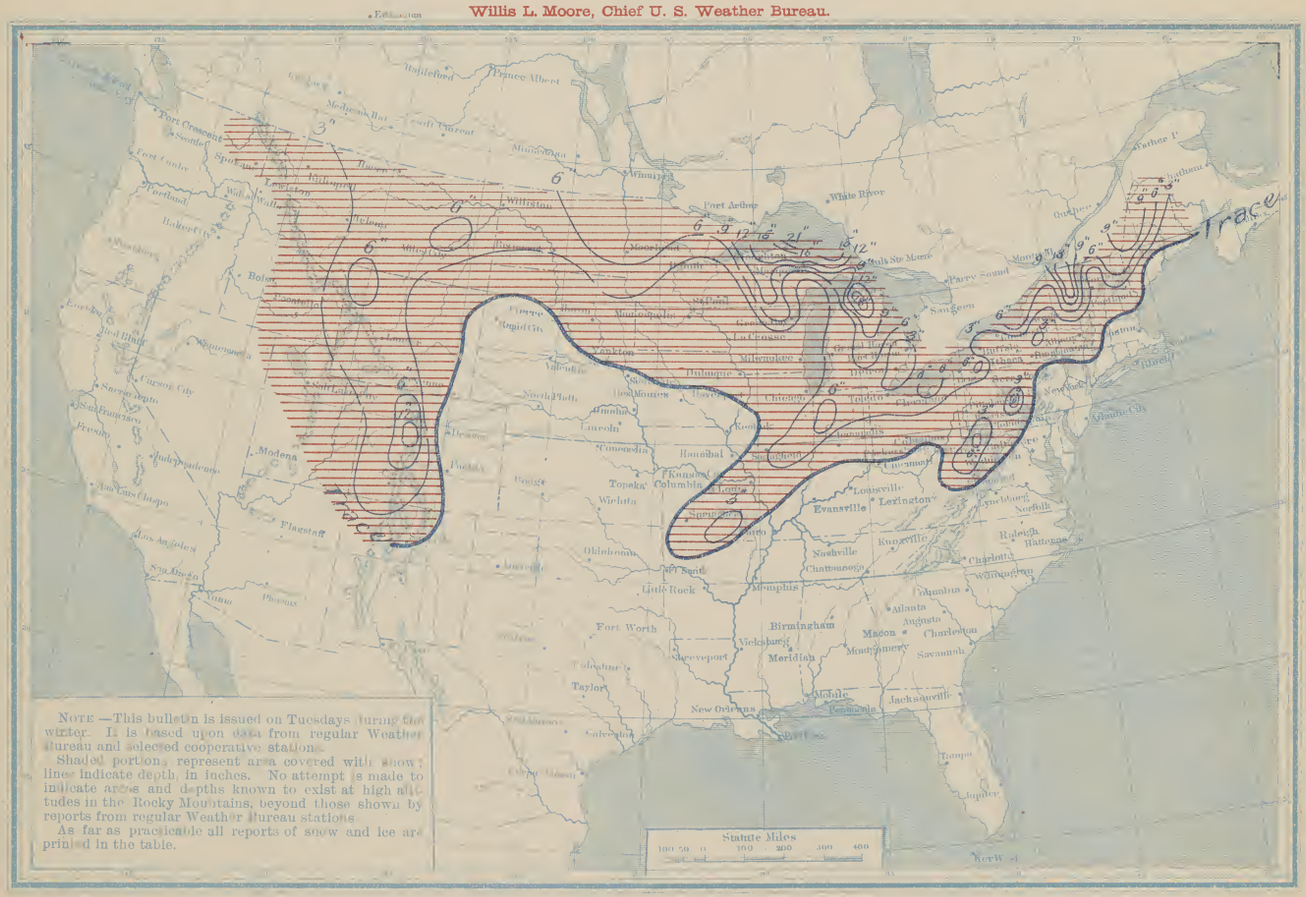
Willis L. Moore, Chief U. S. Weather Bureau.



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Shaded portions represent areas covered with snow; lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *February 18, 1908.*

DEPTH OF SNOW.

At 8 p. m., February 17, 1908, the depth of snow amounted to 3 inches or more over the greater part of the Lake region, the northern portion of New England, the higher portions of the Middle Atlantic States, limited areas in the central Mississippi Valley, and the northern districts to the westward of the upper Lake region. The Upper Michigan Peninsula, the northern counties of the Lower Michigan Peninsula, extreme northeastern New York, and northern Maine had depths generally ranging from 6 to 24 inches. Since the 10th instant much snow has disappeared in the northern districts from the upper Mississippi Valley eastward to the Atlantic coast. The southern limit of snow in the Atlantic coast districts on the 17th was considerably farther north than it was on the 10th, but over the central Mississippi Valley it extended several hundred miles farther south.

At the corresponding date of 1907 the depth of snow was much greater than at this date in New England and over the northern portion of the upper Lake region, but there was considerably less in the lower Lake region and over the southern portion of the upper Lake region.

ICE IN RIVERS, HARBORS, ETC.

The daily mean temperatures were above freezing in the upper Missouri Valley on Tuesday; in the Red River of the North Valley and western Lake Superior region on Tuesday and Wednesday; in the upper Mississippi and lower Missouri valleys and over the eastern portion of the upper Lake region on Tuesday, Wednesday, and Thursday; in the central Mississippi Valley on Wednesday, Thursday, and Friday; in the Ohio Valley and lower Lake region from Tuesday to Saturday; in southern New England from Thursday to Saturday; in northern New England from Friday to Sunday, and in the southern portion of the Middle Atlantic States thruout the week. The daily mean temperatures being above freezing most of the week, except over the extreme northern and western districts, there was considerable diminution in the thickness of ice during the week. The measurements made at 8 p. m., February 17, 1908, were less than at the same hour on the 10th instant in all districts, except over the western portion of the upper Lake region and in the Red River of the North and upper Missouri valleys, where there was no change or a slight increase. At 8 p. m., February 17, ice in the Missouri River ranged from 5 inches at Omaha, Nebr., to 25 inches at Bismarck, N. Dak.; in the upper Mississippi River, from 5 inches at Dubuque, Iowa, to 16 inches at La Crosse, Wis., with floating ice as far south as Hannibal, Mo.; at stations on or near the Great Lakes, generally from 6 to 21 inches; and in the rivers of northern New England, from 7 to 18 inches.

The following special reports have been received by telegraph:

Gardiner, Me., February 17.—The mild weather and rain on the 14th and 15th have practically melted all the snow in the Kennebec Valley.

Brattleboro, Vt., February 17.—The ice in the river is broken up.

Albany, N. Y., February 18.—The snow in the Hudson Valley ranges from a trace at Athens to 10 inches at Thurman; in the Mohawk Valley it ranges from a trace at Cohoes to 3 inches at Utica. In the Mohawk River there is only floating ice. The Hudson River is open from Cohoes to Coeymans, but elsewhere the ice averages 12 inches in thickness.

Parkersburg, W. Va., February 17.—There is heavy running ice in the river.

Rochester, N. Y., February 18.—The ice moved out of the river on the 14th and 15th.

Alpena, Mich., February 17.—The ice was forced out of the bay on Saturday, but new ice is now forming.

Peoria, Ill., February 17.—The river channel is clear, but there is some soft ice in the lake.

Hannibal, Mo., February 17.—The river is full of heavy floating ice.

Omaha, Nebr., February 17.—The river channel has been open and clear since the night of the 12th; the remainder of the river is still covered with ice.

Except in the Missouri River from Pierre, S. Dak., southward to Omaha, Nebr., and at a few stations in the lower Lake region, there is much less ice than there was at the corresponding date of 1907.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., FEBRUARY 17, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arkansas.	*Inches*	*Inches*
Bentonville	T.	.....
Colorado.		
Durango	5	.....
Grand Junction	T.	.....
Leadville	14	.....
Pueblo	T.	.....
Connecticut.		
West Cornwall	1	.....
West Simsbury	T.	.....
Idaho.		
Pocatello	1	0.0
Illinois.		
Bloomington	T.	.....
Chicago	1	.....
Hillsboro	3	.....
New Burnside	T.	.....
Olney	T.	.....
Peoria	T.	0.0
St. John	T.	.....
Springfield	1	.....
Winnebago	1	.....
Indiana.		
Bloomington	T.	.....
Indianapolis	T.	.....
Knox	7	.....
Lafayette	6	.....
Marion	4	.....
Rockville	4	.....
Iowa.		
Carroll	T.	.....
Charles City	T.	.....
Davenport	1	*
Des Moines	.....	7.0
Dubuque	T.	5.0
Keokuk	.....	1.5
Sioux City	T.	10.5
Waterloo	3	.....
Kansas.		
Dodge	T.	.....
Kentucky.		
Eubank	T.	.....
Maine.		
Bangor	.....	16.0
Dauforth	2	.....
Eastport	T.	18.0
Gardiner	T.	13.0
Greenville	9	19.0
Lewiston	3	17.5
Orono	T.	.....
Portland	2	0.0
Maryland.		
Baltimore	T.	3.0
Grantsville	6	.....
Massachusetts.		
Adams	T.	.....
North Adams	1	.....
Michigan.		
Alpena	10	0.0
Ann Arbor	2	.....
Battle Creek	3	.....
Big Rapids	3	.....
Calumet	24	.....
Chatham	8	.....
Detroit	2	12.0
Escanaba	2	19.0
Grand Haven	4	0.0
Grand Marais	16	.....
Grand Rapids	5	.....
Hillsdale	4	.....
Houghton	13	17.0
Iron Mountain	2	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Lansing	7	.....
Mackinaw City	18	.....
Mancelona	18	.....
Marquette	12	1.0
Port Huron	1	15.0
Sault Ste. Marie	6	16.5
St. Ignace	5	.....
Minnesota.		
Alexandria	3	.....
Collegeville	2	.....
Detroit	6	.....
Duluth	1	21.0
Grand Meadow	T.	.....
Hinckley	T.	.....
Minneapolis	T.	.....
Moorhead	6	29.0
Reeds	T.	.....
St. Paul	T.	14.0
Worthington	1	.....
Missouri.		
Columbia	T.	.....
Hannibal	.....	†
Ironton	3	.....
St. Louis	T.	0.0
Springfield	T.	.....
Willowsprings	4	.....
Montana.		
Havre	5	.....
Helena	T.	.....
Kalispell	1	.....
Miles City	6	.....
Nebraska.		
Lincoln	T.	.....
Omaha	T.	5.0
New Hampshire.		
Concord	T.	7.0
Durham	T.	.....
Keene	T.	.....
New Jersey.		
Bridgeton	T.	.....
New Mexico.		
Santa Fe	T.	.....
New York.		
Addison	T.	.....
Albany	T.	0.0
Binghamton	T.	.....
Buffalo	1	11.0
Canton	4	.....
Cooperstown	2	.....
De Ruyter	4	.....
Franklinville	6	.....
Geneva	1	.....
Herkimer	1	.....
Ithaca	1	.....
Jamestown	4	.....
Keuka Park	2	.....
Lake Placid	27	.....
Malone	6	.....
Oswego	8	10.0
Rochester	2	0.0
Saranac Lake	24	.....
Syracuse	1	.....
Wedgwood	1	.....
North Dakota.		
Bismarck	2	25.0
Devils Lake	6	.....
Williston	3	16.0
Ohio.		
Cincinnati	T.	0.0
Cleveland	7	6.0
Columbus	T.	3.0

Stations.	Snow.	Ice in rivers, harbors, etc.
Ohio—Cont'd.	*Inches*	*Inches*
Dayton	T.	.....
Fredericktown	4	.....
Garrettsville	4	.....
Kenton	1	.....
Philo	T.	.....
Sandusky	4	8.5
Tiffin	3	.....
Toledo	2	0.0
Wauseon	3	.....
Oregon.		
Baker City	T.	.....
Pennsylvania.		
Aleppo	1	.....
Claysville	1	.....
Ephrata	T.	.....
Erie	3	4.5
Gettysburg	T.	.....
Harrisburg	T.	†
Marion	T.	.....
Mifflintown	7	.....
Pittsburg	1	0.0
Scranton	T.	.....
Selins Grove	2	.....
Skidmore	1	.....
State College	T.	.....
South Dakota.		
Huron	1	13.5
Pierre	T.	19.0
Yankton	1	12.5
Texas.		
Amarillo	T.	.....
Utah.		
Salt Lake City	2	.....
Vermont.		
Brattleboro	2	0.0
Burlington	2	10.0
Northfield	3	.....
St. Johnsbury	3	.....
Virginia.		
Dale Enterprise	T.	.....
Mount Weather	T.	.....
Stephens City	T.	.....
Woodstock	T.	.....
Washington.		
Spokane	T.	.....
West Virginia.		
Elkins	3	0.0
Grafton	1	.....
Morgantown	2	.....
Parkersburg	T.	†
Romney	T.	.....
Weston	4	.....
Wisconsin.		
Ashland	6	.....
Green Bay	4	12.0
Koepenick	10	.....
La Crosse	.....	16.0
Lake Mills	T.	.....
Madison	1	.....
Medford	2	.....
Milwaukee	1	0.0
Mount Horeb	1	.....
Portage	T.	.....
Racine	2	.....
Stevens Point	2	.....
Viroqua	T.	.....
Wyoming.		
Cheyenne	T.	.....
Lander	4	.....
Sheridan	1	.....
Yellowstone Park	7	.....

* Shore ice. † Floating ice. T. indicates trace.

U. S. DEPARTMENT OF AGRICULTURE,
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As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *February 25, 1908.*

DEPTH OF SNOW.

New England, the northern portion of the Middle Atlantic States, the Lake region, the central Mississippi and Red River of the North valleys, and portions of the central Rocky Mountain region were covered with snow at 8 p. m., February 24, 1908. The depths in the upper Lake region generally ranged from 6 to more than 18 inches and in New England and the northern portion of the Middle Atlantic States from 3 to 12 inches. The greatest depths are reported from the northern counties of the Lower Michigan Peninsula and along the southern shore of Lake Superior. The southern limit of snow is somewhat farther south on the Atlantic coast, but westward of the Mississippi it is farther north than it was on the 17th instant.

At the corresponding date of 1907 there was less snow than at this date in the middle Rocky Mountain region and from central and northern Illinois eastward to the eastern portions of Pennsylvania and New York, and more in the Dakotas, Minnesota, Wisconsin, and upper Michigan, and along the Atlantic coast from Virginia to Maine.

ICE IN RIVERS, HARBORS, ETC.

The mean temperature during the week ending with Monday was much above the normal in North Dakota and Minnesota, slightly above in the western portion of the upper Lake region, and below the normal in the lower Lake region, Ohio Valley, Middle Atlantic States, and New England. Tuesday and Wednesday were the coldest days in the Dakotas and Minnesota; Wednesday and Thursday in the upper Mississippi Valley, and Saturday in the Middle Atlantic States and New England. The daily means were below freezing thruout the week in the upper Lake region and the northern portions of New England and the Middle Atlantic States; they were generally above freezing on Saturday, Sunday, and Monday westward of the Lake region. At 8 p. m., February 24, 1908, ice in the upper Missouri River ranged from 4 inches at Omaha, Nebr., to 24 inches at Bismarck, N. Dak.; in the upper Mississippi River, from 4 inches at Dubuque, Iowa, to 14.5 inches at La Crosse, Wis.; at stations on or near the Great Lakes, from 4 to 21 inches; and in the rivers of northern New England, from 3 to 16 inches. The measurements made at 8 p. m. on the 24th, as compared with those at the same hour on the 17th, show an increase in the Lake region and generally in the Middle Atlantic States and New England, altho in portions of the last-named districts the conditions on these two dates were much the same, and at a few stations in New England diminished thickness was reported. In the upper Mississippi and upper Missouri rivers a decided decrease is shown.

The following special reports have been received by telegraph:

Albany, N. Y., February 25.—In the Hudson Valley the snow ranges from 6 inches at Athens to 12 inches at Corinth; in the Mohawk Valley it averages 6 inches in depth. In the Hudson River the ice averages about 14 inches in thickness. The Mohawk River is mostly open.

Pittsburg, Pa., February 24.—There is light floating ice in the Allegheny River.

Toledo, Ohio, February 24.—The ice is gorged in the Maumee River.

Peoria, Ill., February 24.—There is still some soft ice in the lake.

Hannibal, Mo., February 24.—There is no floating ice in the river here, and shore ice is rapidly disappearing.

There is now much less ice than there was at the same date in 1907 to the eastward of the upper Mississippi Valley, except in the western portion of the lower Lake region, where there is somewhat more. In the upper Missouri River there is considerably more ice than at the same date in the preceding year.

JAMES BERRY, *Chief of Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., FEBRUARY 24, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arizona.	*Inches*	*Inches*
Flagstaff	1	.....
Colorado.		
Durango	4	.....
Leadville	7	.....
Connecticut.		
Hartford	4	†
New Haven	2	.....
West Cornwall	6	.....
West Simsbury	5	.....
Dist. of Columbia.		
Washington	T.	0.0
Illinois.		
Bloomington	1	.....
Chicago	8	.....
Dixon	2	.....
La Salle	1	0.0
Minonk	6	.....
Monmouth	2	.....
Peoria	1	0.0
Springfield	1	.....
Indiana.		
Bloomington	1	.....
Indianapolis	T.	.....
Knox	9	.....
Lafayette	4	.....
Marion	5	.....
Rockville	T.	.....
Iowa.		
Davenport	T.	0.0
Des Moines	T.	0.0
Dubuque	1	4.0
Keokuk	2	1.5
Sioux City	.....	9.5
Maine.		
Bangor	6	16.0
Buckfield	10	.....
Cornish	10	.....
Danforth	8	.....
Eastport	T.	20.0
Gardiner	8	12.0
Greenville	14	25.5
Lewiston	9	17.0
Orono	6	.....
Portland	9	0.0
Maryland.		
Baltimore	T.	3.5
Grantsville	15	.....
Oakland	6	.....
Massachusetts.		
Adams	10	.....
Amherst	5	.....
Boston	2	.....
Concord	4	.....
Fitchburg	6	.....
Mansfield	3	.....
Nantucket	T.	0.0
Michigan.		
Alpena	12	4.0
Ann Arbor	8	.....
Big Rapids	3	.....
Calumet	23	.....
Carsonville	24	.....
Chatham	11	.....
Detroit	7	12.0
Escanaba	4	21.0
Grand Haven	4	0.0
Grand Marais	20	.....
Grand Rapids	5	.....
Iron Mountain	2	.....
Iron River	5	.....
Lansing	12	.....
Lewiston	25	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Mackinaw City	15	.....
Manistee	2	.....
Marquette	13	2.0
Port Huron	4	18.0
Saginaw	6	.....
Sault Ste. Marie	6	17.0
South Haven	10	.....
Minnesota.		
Collegeville	1	.....
Detroit	5	.....
Duluth	T.	20.0
Grand Meadow	T.	.....
Moorhead	2	29.0
St. Paul	.....	9.0
Worthington	1	.....
Missouri.		
Hannibal	2	*
Montana.		
Kalispell	T.	.....
Miles City	T.	.....
Nebraska.		
Lincoln	T.	.....
Omaha	T.	4.0
Nevada.		
Tonopah	4	.....
New Hampshire.		
Bethlehem	6	.....
Concord	7	14.0
Durham	7	.....
Hanover	10	.....
Keene	6	.....
New Jersey.		
Belvidere	3	.....
Bridgeton	T.	.....
Charlotteburg	4	.....
Flemington	1	.....
Hightstown	T.	.....
New York.		
Albany	7	2.0
Binghamton	8	.....
Buffalo	4	12.0
Canton	8	.....
Cooperstown	10	.....
Cutchogue	1	.....
De Ruyter	9	.....
Franklinville	12	.....
Geneva	2	.....
Herkimer	6	.....
Ithaca	3	.....
Le Roy	4	.....
Malone	10	.....
New York	T.	.....
Oswego	8	11.0
Philadelphia	11	.....
Port Jervis	6	.....
Pouglkeepsie	3	.....
Rochester	4	0.0
Rome	12	.....
Setauket	T.	.....
Southampton	1	.....
Syracuse	3	.....
Wedgwood	7	.....
North Dakota.		
Bismarck	T.	24.0
Devils Lake	T.	.....
Williston	T.	15.0
Ohio.		
Cadiz	T.	.....
Cincinnati	T.	0.0
Cleveland	4	8.0
Columbus	T.	5.0
Fredericktown	4	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Ohio—Cont'd.	*Inches*	*Inches*
Garrettsville	5	.....
Philo	T.	.....
Sandusky	5	12.0
Tiffin	3	.....
Toledo	6	‡
Wauseon	10	.....
Pennsylvania.		
Claysville	T.	.....
Ephrata	1	.....
Erie	3	7.0
Gettysburg	5	.....
Gordon	8	.....
Harrisburg	6	†
Johnstown	10	.....
Marion	9	.....
Mifflintown	16	.....
Parker	7	.....
Pittsburg	2	†
Scranton	4	.....
Selins Grove	11	.....
Skidmore	3	.....
South Eaton	12	.....
State College	8	.....
Towanda	6	.....
Rhode Island.		
Block Island	T.	0.0
Kingston	4	.....
Narragansett	2	.....
Providence	2	0.0
South Dakota.		
Huron	.....	12.0
Pierre	.....	12.0
Yankton	.....	10.0
Utah.		
Modena	T.	.....
Salt Lake City	T.	.....
Vermont.		
Brattleboro	10	2.0
Burlington	4	11.0
Northfield	6	.....
St. Johnsbury	12	.....
Virginia.		
Lynchburg	T.	0.0
Mount Weather	2	.....
Stephens City	2	.....
Woodstock	1	.....
West Virginia.		
Elkins	1	0.0
Grafton	T.	.....
Romney	1	.....
Weston	T.	.....
Wisconsin.		
Ashland	5	.....
Koepenick	12	.....
La Crosse	.....	14.5
Lake Mills	1	.....
Madison	2	.....
Medford	2	.....
Milwaukee	8	0.0
Minocqua	2	.....
New London	2	.....
Portage	T.	.....
Racine	T.	.....
Sheboygan	6	.....
Stevens Point	2	.....
Viroqua	T.	.....
Wyoming.		
Cheyenne	T.	.....
Lander	3	.....
Sheridan	6	.....
Yellowstone Park	T.	.....

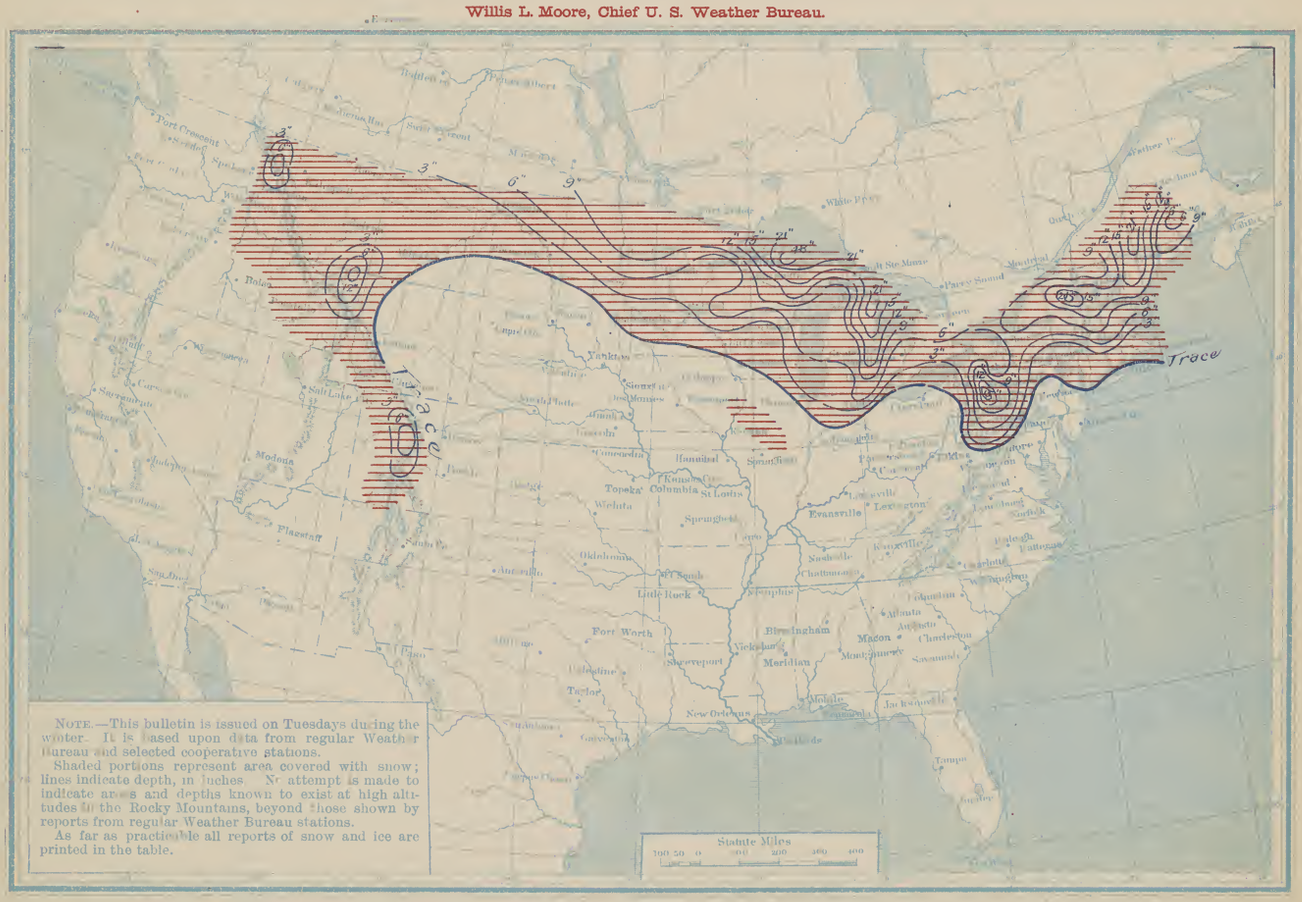
*Shore ice. † Floating ice. ‡ Ice gorge. T. indicates trace.

U. S. DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.



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Shaded portions represent area covered with snow; lines indicate depth, in inches. No attempt is made to indicate areas and depths known to exist at high altitudes in the Rocky Mountains, beyond those shown by reports from regular Weather Bureau stations.

As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *March 3, 1908.*

DEPTH OF SNOW.

Only the extreme northern portions of the country were covered with snow at 8 p. m., March 2, 1908. The depths in the upper Lake region generally ranged from 3 to 15 inches, except over the eastern portion of the Upper Michigan Peninsula and the northern portion of Lower Michigan, where the depths were much greater, from 18 to 50 inches being reported from stations along the southern shore of Lake Superior and from 15 to 29 inches in the northeastern counties of the Lower Michigan Peninsula. The depths generally ranged from 3 to 12 inches in western Pennsylvania, western and northern New York, and northern New England, except over small areas, where they were much greater. The southern limit of snow to the eastward of the Mississippi Valley was from 50 to 200 miles farther north than on February 24, 1908, and the depths over the southern portion of the area covered on the 2d instant generally ranged from 3 to 6 inches less than on the 24th ultimo. Largely increased depths, however, were indicated on the 2d instant over the more northerly portions of the area now covered.

There is now more snow than there was at the corresponding date of 1907 over the southern part of the upper Lake region, the eastern part of the lower Lake region, the northern part of the Middle Atlantic States and northwestern New England, but less in eastern and southern New England, the western part of the Upper Michigan Peninsula, Minnesota, and the Dakotas.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., March 2, 1908, ice in the upper Missouri River ranged from 6 inches at Pierre, S. Dak., to 23.5 inches at Bismarck, N. Dak., with thin shore ice at Omaha. In the upper Mississippi River it ranged from 3 inches at Dubuque, Iowa, to 14 inches at St. Paul, Minn., the river being open at Davenport, Iowa. Numerous stations on or near the Great Lakes report measurements generally ranging from 8 to 20 inches. In the rivers of northern New England the thickness of ice ranged from 6 to 18 inches, 27 inches being reported from Moosehead Lake.

The temperature was above the normal thruout the week in the upper Missouri Valley and during the greater part of the week in the upper Mississippi and lower Ohio valleys. Under these conditions there was a general decrease in the thickness of ice in the upper Missouri and upper Mississippi rivers, as compared with the reports of the previous week. In the Lake region the mean temperature was below the normal and the reports of ice in that district, as well as in New England, generally show an increase, altho at a few stations in the lower Lake region slightly diminished thickness is reported.

The following special reports have been received by telegraph; that from Detroit relates to the conditions existing thruout the Great Lakes and is a summary of a large number of reports collected at that station:

Albany, N. Y., March 3.—In the Hudson Valley the snow ranges from 3 inches at Athens to 14 inches at Corinth; in the Mohawk Valley it ranges from 4 inches at Cohoes to 10 inches at Utica. In the Hudson River the ice averages about 13 inches in thickness. The Mohawk River is mostly open.

Toledo, Ohio, March 2.—The ice continues gorged in the Maumee River.

Detroit, Mich., March 3.—In Lake Superior there are extensive fields over extreme western and eastern portions. In Green Bay the ice is solid. In Lake Michigan there are no extensive fields over western and southern portions. The Straits of Mackinac are solid, but the ice is not as heavy as it was last season. There are no extensive fields over the northern portion of Lake Huron, but from Saginaw Bay southward the ice extends beyond vision. There is some open water in Lake St. Clair. In the Detroit River ice extends from Third street, Detroit, to the mouth of the river. In Lake Erie the ice along the southern shore extends beyond vision. There are not many fields in Lake Ontario. Generally there is not quite as much ice indicated in lakes as there was last season.

Hannibal, Mo., March 2.—There is very little floating ice in the river here.

Generally there is much less ice than there was at the corresponding date of 1907.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., MARCH 2, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Colorado.	*Inches*	*Inches*
Durango	T.	.....
Leadville	6	.....
Connecticut.		
Hartford	2	†
New Haven	1	.....
West Simsbury	5	.....
Idaho.		
Pocatello	T.	0.0
Wallace	11	.....
Illinois.		
Bloomington	T.	.....
Chicago	3	.....
Monmouth	T.	.....
Peoria	T.	0.0
Indiana.		
Lafayette	T.	.....
Iowa.		
Davenport	T.	0.0
Des Moines	.....	3.5
Dubuque	.....	3.0
Keokuk	.....	2.0
Sioux City	.....	7.5
Maine.		
Bangor	9	17.0
Buckfield	15	.....
Danforth	4	.....
Eastport	10	21.0
Gardiner	12	12.0
Greenville	23	27.0
Lewiston	15	18.0
Millinocket	22	.....
Orono	8	.....
Portland	14	0.0
Maryland.		
Baltimore	.....	2.5
Massachusetts.		
Adams	11	.....
Amherst	6	.....
Boston	2	.....
Concord	2	.....
Fitchburg	10	.....
Mansfield	2	.....
Nantucket	T.	0.0
Michigan.		
Alpena	16	7.0
Ann Arbor	8	.....
Big Rapids	6	.....
Calumet	32	.....
Chatham	18	.....
Detroit	4	10.0
Escanaba	13	21.0
Grand Haven	6	0.0
Grand Marais	30	.....
Grand Rapids	5	.....
Hillsdale	11	.....
Houghton	19	20.0
Humboldt	51	.....
Iron Mountain	9	.....
Lansing	15	.....
Michigan—Cont'd.		
Lewiston	29	.....
Mackinaw City	22	.....
Manistee	6	.....
Maple Ridge	30	.....
Marquette	31	5.5
Port Huron	6	20.0
Saginaw	14	.....
Sault Ste. Marie	19	17.0
St. Ignace	8	.....
Minnesota.		
Alexandria	5	.....
Bird Island	T.	.....
Collegeville	1	.....
Detroit	12	.....
Duluth	4	21.0
Faribault	T.	.....
Grand Meadow	T.	.....
Hinckley	4	.....
Milan	2	.....
Minneapolis	T.	.....
Moorhead	9	29.0
St. Paul	T.	9.0
Worthington	T.	.....
Missouri.		
Hannibal	.....	†
Montana.		
Havre	2	.....
Helena	T.	.....
Kalispell	T.	.....
Miles City	1	.....
Nebraska.		
Omaha	.....	1.0
New Hampshire.		
Bethlehem	7	.....
Concord	8	9.0
Durham	8	.....
Keene	9	.....
New York.		
Addison	3	.....
Albany	3	4.0
Binghamton	1	.....
Buffalo	3	10.0
Canton	9	.....
Cooperstown	6	.....
De Ruyter	6	.....
Franklinville	10	.....
Herkimer	6	.....
Ithaca	T.	.....
Keuka Park	3	.....
Lake Placid	30	.....
Malone	8	.....
New York	T.	.....
Oswego	10	12.0
Plattsburg	8	.....
Rochester	4	0.5
Saranac Lake	28	.....
Saratoga	10	.....
Syracuse	2	.....
New York—Cont'd.		
Wedgwood	8	.....
North Dakota.		
Bismarck	2	23.5
Devils Lake	8	.....
Williston	2	15.0
Ohio.		
Cleveland	.....	7.0
Garrettsville	T.	.....
Sandusky	.....	11.0
Toledo	1	‡
Wauseon	7	.....
Oregon.		
Baker City	T.	.....
Pennsylvania.		
Erie	1	8.5
Harrisburg	T.	0.0
Johnstown	7	.....
Marion	4	.....
Mifflintown	9	.....
Parker	3	.....
St. Marys	18	.....
Scranton	T.	.....
Skidmore	T.	.....
State College	6	.....
Towanda	3	.....
Rhode Island.		
Kingston	T.	.....
Narragansett	T.	.....
Providence	1	0.0
South Dakota.		
Huron	.....	11.0
Pierre	.....	6.0
Yankton	.....	10.0
Vermont.		
Brattleboro	10	6.0
Burlington	6	13.0
Northfield	13	.....
St. Johnsbury	14	.....
West Virginia.		
Romney	T.	.....
Wisconsin.		
Ashland	4	.....
Eau Claire	7	.....
Green Bay	2	12.0
Koepenick	14	.....
La Crosse	T.	14.0
Lake Mills	1	.....
Madison	T.	.....
Medford	7	.....
Milwaukee	2	0.0
Minocqua	5	.....
Portage	T.	.....
Sheboygan	7	.....
Stevens Point	5	.....
Viroqua	T.	.....
Wyoming.		
Sheridan	T.	.....
Yellowstone Park	15	.....

† Floating ice. ‡ Ice gorge. T. indicates trace.

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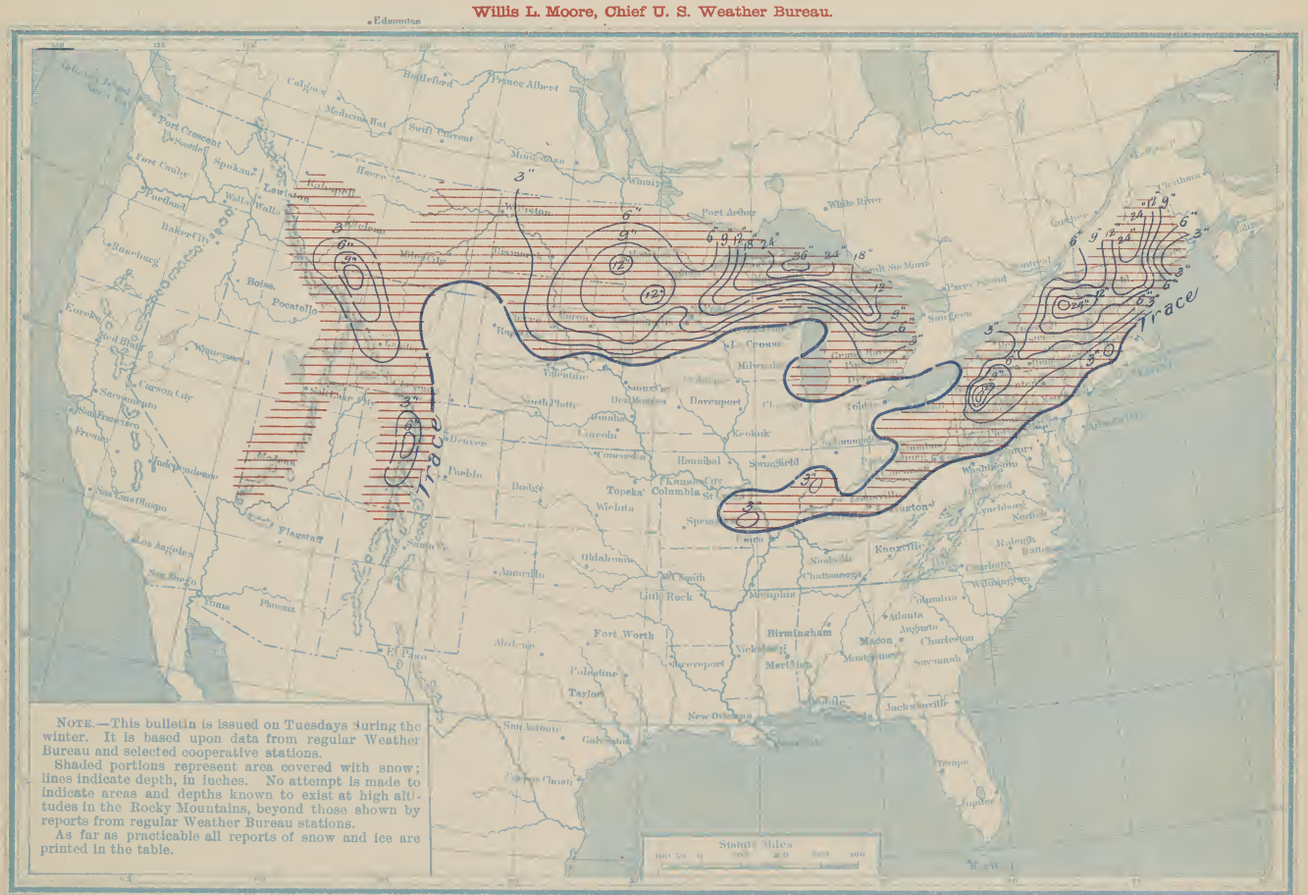

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As far as practicable all reports of snow and ice are printed in the table.

WASHINGTON, D. C., *March 10, 1908.*

DEPTH OF SNOW.

Portions of the central and northern Rocky Mountain regions and the extreme northern districts from the upper Missouri Valley to the New England coast were covered with snow at 8 p. m., March 9, 1908; there were slight depths in the Ohio Valley. In the Upper Michigan Peninsula, some of the northern counties of the Lower Michigan Peninsula, northern New York, and portions of northern New England the depths exceeded 18 inches, and over limited areas in some of these districts the depths ranged from 24 to more than 30 inches, the greatest, 48 inches, being reported from Humboldt, in upper Michigan. Considerable snow has disappeared in the eastern portion of the upper Lake region and in the lower Lake region and southern New England, but increased depths are shown in portions of northern Maine, the western part of the Upper Michigan Peninsula and in Minnesota, northern Wisconsin, and the Dakotas. A considerable part of the southern portion of the Lake region that was covered with snow on the 2d instant was free from snow on the 9th.

There is now more snow than there was at the corresponding date of 1907 in portions of northern New England, the upper Lake region, upper Missouri Valley, and northern Rocky Mountain region, but much less along the New England and Middle Atlantic coasts and in the western Lake Superior region and Red River of the North Valley.

ICE IN RIVERS, HARBORS, ETC.

At 8 p. m., March 9, 1908, ice in the Missouri River ranged from 10 inches at Yankton, S. Dak., to 23.5 inches at Bismarck, N. Dak., none being reported from Pierre, S. Dak., or to the southward. In the Mississippi River it was 10 inches thick at La Crosse, Wis., and 9 inches thick at St. Paul, Minn., the river being open, with floating ice, at Dubuque, Iowa. Stations on or near the Great Lakes reporting ice show from 4 to 22 inches. In the rivers and lakes of northern New England ice generally ranges from 6 to 27 inches.

The mean temperature in the upper Missouri Valley and the northern portions of the upper Lake region and New England was below freezing, except during the latter part of the week in the easterly sections, and the only increase in ice measurements, as compared with those of the preceding week, is shown in these districts. There was less ice on the 9th than on the 2d in the lower Lake region and in the upper Mississippi and central Missouri rivers.

The following special reports have been received by telegraph; that from Detroit relates to the conditions existing thruout the Great Lakes and is a summary of a large number of reports collected at that station:

Albany, N. Y., March 10.—In the Hudson Valley the snow depth ranges from 3 inches at Athens to 14 inches at Thurman; in the Mohawk Valley it ranges from 3 inches at Cohoes to 8 inches at Utica. In the Hudson River the ice averages about 10 inches in thickness; the Mohawk River is mostly open.

Detroit, Mich., March 10.—In Lake Superior the ice extends from Duluth outward a distance of 15 miles; beyond is open water to Keweenaw Point; there are large ice fields in the central and eastern portions of the lake. Ice is 17 inches thick in the St. Marys River. Green Bay is solidly frozen, but the ice is softening in the southern end. In Lake Michigan the ice is confined to the northern end from Grand Traverse Bay to the Straits of Mackinac. In Lake Huron there are large ice fields over the northern and southern portions, between which there is open water. Ice in Lake St. Clair is solid, and in the Detroit River it extends from Third street, Detroit, to the mouth of the river. In the western end of Lake Erie winds have driven the ice from the southern shore; the central and eastern portions are covered with field ice. There are no ice fields of importance in Lake Ontario. Generally the reports indicate that there is now less ice than there was last season at this time, except in eastern Lake Superior and northern Lake Huron.

Des Moines, Iowa, March 9.—The ice in the river started running on Sunday morning.

Sioux City, Iowa, March 10.—The channel of the river is clear; there is some shore ice above the place of measurement.

There was decidedly less ice in nearly all districts on the 9th instant than at the corresponding date of 1907.

JAMES BERRY, *Chief Climatological Division.*

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., MARCH 9, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.
Arkansas.	*Inches*	*Inches*
Bentonville	T.	.....
Colorado.		
Durango	T.	.....
Leadville	6	.....
Connecticut.		
Hartford	T.	†
West Simsbury	3	.....
Illinois.		
Chicago	T.	.....
New Burnside	4	.....
Olney	T.	.....
St. John	3	.....
Indiana.		
Evansville	T.	0.0
Marion	T.	.....
Paoli	2	.....
Princeton	3	.....
Iowa.		
Des Moines	.....	†
Dubuque	.....	†
Kentucky.		
Catlettsburg	1	.....
Eubank	T.	.....
Lexington	T.	.....
St. John	T.	.....
Maine.		
Bangor	3	18.0
Buckfield	14	.....
Cornish	16	.....
Danforth	7	.....
Eastport	T.	21.0
Gardiner	12	12.0
Greenville	26	27.0
Lewiston	10	19.0
Millinocket	30	.....
Orono	12	.....
Portland	7	0.0
Maryland.		
Baltimore	.....	1.0
Grantsville	1	.....
Oakland	T.	.....
Massachusetts.		
Adams	7	.....
Amherst	1	.....
Concord	T.	.....
Fitchburg	6	.....
Michigan.		
Alpena	11	9.0
Ann Arbor	T.	.....
Big Rapids	1	.....
Calumet	35	.....
Carsonville	3	.....
Detroit	T.	4.0
Escanaba	8	22.0
Grand Haven	T.	0.0
Grand Rapids	1	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
Michigan—Cont'd.	*Inches*	*Inches*
Houghton	20	19.5
Humboldt	48	.....
Iron Mountain	12	.....
Lansing	2	.....
Lewiston	27	.....
Mackinaw City	24	.....
Manistee	T.	.....
Maple Ridge	36	.....
Marquette	37	7.5
Port Huron	T.	20.0
Saginaw	2	.....
Sault Ste. Marie	16	17.0
South Haven	T.	.....
Minnesota.		
Bird Island	4	.....
Collegeville	12	.....
Duluth	4	20.0
Faribault	1	.....
Grand Meadow	T.	.....
Milan	7	.....
Minneapolis	6	.....
Moorhead	12	30.0
Reeds	9	.....
St. Paul	3	9.0
Worthington	6	.....
Missouri.		
Ironton	3	.....
St. Louis	T.	0.0
Montana.		
Helena	T.	.....
Kalispell	T.	.....
Miles City	1	.....
New Hampshire.		
Bethlehem	9	.....
Concord	6	9.0
Hanover	8	.....
Keene	7	.....
New Jersey.		
Charlotteburg	1	.....
New York.		
Albany	3	5.0
Binghamton	3	.....
Buffalo	T.	8.0
Cooperstown	6	.....
De Ruyter	6	.....
Geneva	1	.....
Ithaca	1	.....
Jamestown	1	.....
Keuka Park	4	.....
Le Roy	T.	.....
Oswego	8	11.0
Rochester	1	0.0
Saranac Lake	24	.....
Saratoga	10	.....
Syracuse	1	.....
Wedgwood	5	.....

Stations.	Snow.	Ice in rivers, harbors, etc.
North Dakota.	*Inches*	*Inches*
Bismarck	3	23.5
Williston	2	15.0
Ohio.		
Cincinnati	T.	0.0
Columbus	T.	0.0
Fredericktown	1	.....
Kenton	2	.....
Tiffin	T.	.....
Wooster	3	.....
Pennsylvania.		
Claysville	2	.....
Erie	.....	6.0
Harrisburg	T.	0.0
Johnstown	T.	.....
Marion	T.	.....
Pittsburg	2	0.0
St. Marys	15	.....
Scranton	T.	.....
Skidmore	2	.....
South Eaton	4	.....
State College	4	.....
South Dakota.		
Huron	7	12.0
Pierre	6	7.0
Yankton	.....	10.0
Utah.		
Modena	T.	.....
Salt Lake City	1	.....
Vermont.		
Brattleboro	9	6.0
Burlington	3	13.0
Northfield	11	.....
St. Johnsbury	15	.....
Virginia.		
Fredericksburg	T.	.....
Mount Weather	1	.....
West Virginia.		
Grafton	T.	.....
New Martinsville	1	.....
Parkersburg	T.	0.0
Wisconsin.		
Ashland	8	.....
Eau Claire	6	.....
Green Bay	T.	8.0
La Crosse	.....	10.0
Medford	15	.....
Milwaukee	T.	0.0
New London	T.	.....
Racine	T.	.....
Stevens Point	5	.....
Viroqua	T.	.....
Wyoming.		
Lander	4	.....
Sheridan	T.	.....
Yellowstone Park	10	.....

† Floating ice. T. indicates trace.

Mch. 17, 1908

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Willis L. Moore, Chief U. S. Weather Bureau.

U.S. Department of Agriculture
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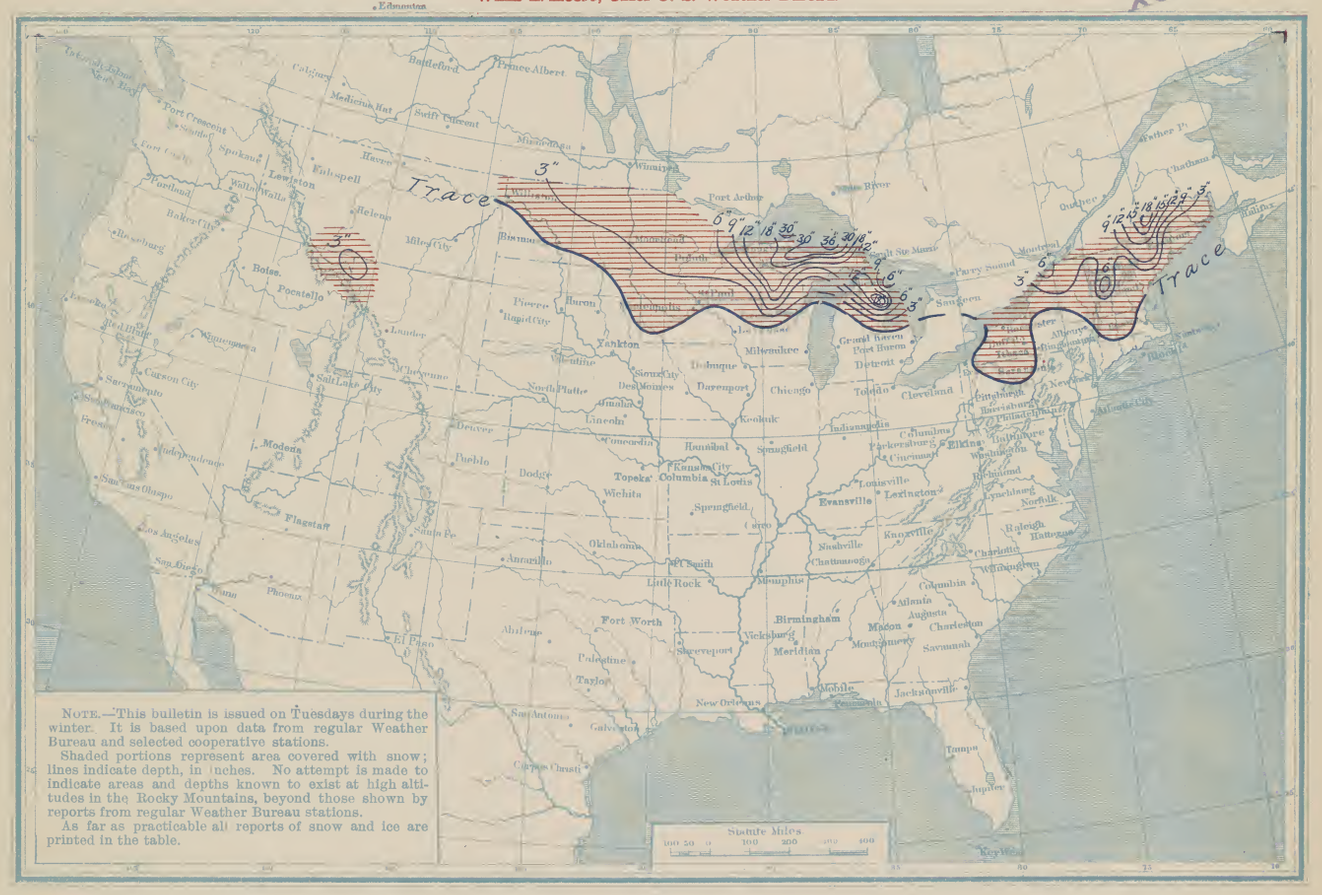
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Trace
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WASHINGTON, D. C., *March 17, 1908.*

DEPTH OF SNOW.

At 8 p. m., March 16, 1908, only the extreme northern districts from North Dakota eastward to the northern portion of the Lower Michigan Peninsula and portions of western Pennsylvania, New York, and northern New England were covered with snow. Great depths still exist in the Upper Michigan Peninsula and the northern portion of the Lower Michigan Peninsula, where they generally range from 1 foot to more than 2 feet, the greatest depth, 3 feet, being reported from Grand Marais, Mich. In north-central Maine the depths range from 6 to 20 inches.

Considerable snow has disappeared during the week, from 4 to 12 inches less being reported from the Dakotas, Minnesota, and the northern portions of the upper Lake region and New England.

Over the eastern portion of the upper Lake region there is now considerably more snow than there was at the corresponding date of 1907, but there is much less in northern Minnesota and eastern North Dakota and in southern Maine.

ICE IN RIVERS, HARBORS, ETC.

In the upper Missouri River northward of Bismarck the thickness of ice ranges from 15 inches at Williston, N. Dak., to 22 inches at Bismarck, N. Dak. The Mississippi River is now open at St. Paul and to the southward. Reports indicate from 8 to 23 inches of ice in the harbors of the northern portion of the upper Lake region and from 6 to 27 inches in the rivers and lakes of northern New England.

There were no temperatures favorable for the formation of ice during the week, except on the 10th and 11th in northern New England and during the latter part of the week in the upper Lake region and northern portions of the upper Mississippi and upper Missouri valleys. In the Missouri River northward of Bismarck, N. Dak., at stations in the northern portions of the upper Lake region, and in extreme northern New England but little change, as compared with the conditions reported on the 9th instant, has occurred, but the reports from stations in the lower Lake region and the southern portion of New England indicate a decided decrease in the quantity of ice.

The following special reports have been received by telegraph; that from Detroit relates to the conditions existing thruout the Great Lakes and is a summary of a large number of reports collected at that station:

Gardiner, Me., March 16.—The uplands in the Kennebec Valley are free from snow, but the lowlands have drifts 12 inches in depth. The channel of the river is partly open at Gardiner.

Buffalo, N. Y., March 16.—There is floating ice in the harbor; the Lake ice is intact.

Albany, N. Y., March 17.—In the Hudson Valley the snow averages 4 inches in depth from Glens Falls northward; in the Mohawk Valley it averages 1 inch in the vicinity of Utica. The Mohawk and Hudson rivers are practically open except the extreme upper Hudson.

St. Paul, Minn., March 16.—The river is full of floating ice. The channel is clear above and below as far as the eye can see. There is some shore ice.

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., MARCH 16, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.
Connecticut.	*Inches*	*Inches*	*Michigan*—Cont'd.	*Inches*	*Inches*	*New York*—Cont'd.	*Inches*	*Inches*
West Simsbury	T.	.....	Marquette	33	8.0	Ogdensburg	8	.....
Maine.			Sault Ste. Marie	11	17.0	Oswego	T.	0.0
Bangor	.....	18.5	*Minnesota.*			Rochester	T.	0.0
Buckfield	6	.....	Bird Island	T.	.....	Syracuse	T.	.....
Cornish	6	.....	Collegeville	T.	.....	*North Dakota.*		
Eastport	T.	22.5	Detroit	3	.....	Bismarck	T.	22.0
Gardiner	4	6.0	Duluth	3	19.0	Devils Lake	4	.....
Greenville	18	27.0	Hinckley	1	.....	Williston	T.	15.0
Lewiston	T.	16.0	Milan	T.	.....	*Pennsylvania.*		
Millinocket	20	.....	Minneapolis	1	.....	Selins Grove	T.	.....
Orono	T.	.....	Moorhead	2	30.0	Towanda	T.	.....
Portland	1	0.0	St. Paul	T.	†	*South Dakota.*		
Massachusetts.			Worthington	T.	.....	Huron	.....	†
North Adams	2	.....	*Montana.*			*Vermont.*		
Michigan.			Havre	T.	.....	Brattleboro	2	0.0
Alpena	4	9.0	*New Hampshire.*			Burlington	T.	10.0
Big Rapids	T.	.....	Bethlehem	T.	.....	Northfield	2	.....
Calumet	31	.....	Concord	1	6.0	St. Johnsbury	6	.....
Chatham	11.0	.....	Keene	T.	.....	*Wisconsin.*		
Escanaba	3	23.0	*New York.*			Ashland	6	.....
Grand Marais	36	.....	Addison	T.	.....	Eau Claire	T.	.....
Houghton	16	19.5	Binghamton	T.	.....	Green Bay	T.	0.0
Humboldt	33	.....	Buffalo	.....	†	Koepenick	12	.....
Iron Mountain	8	.....	Canton	T.	.....	Medford	2	.....
Lewiston	27	.....	Franklinville	2	.....	Stevens Point	2	.....
Mackinaw City	15	.....	Geneva	T.	.....	Wausau	T.	.....
Mancelona	14	.....	Ithaca	T.	.....	*Wyoming.*		
Maple Ridge	17	.....	Malone	4	.....	Yellowstone Park	5	.....

† Floating ice. T. indicates trace.

Yankton, S. Dak., March 16.—Ice in the channel broke at 11 a. m. of the 11th; the channel is now clear.

Huron, S. Dak., March 16.—The ice is floating and honeycombed so that measurements are impracticable.

Detroit, Mich., March 17.—In Lake Superior there are some broken ice fields over the western portion and extensive fields over the eastern portion, but the ice is not heavy. The ice in Saint Marys River is softening. In Green Bay it is still intact, but with water on top. There is no ice in Lake Michigan, except over the northern portion from Traverse Bay to the Straits, where the conditions remain practically as on the 10th instant. Ice fields in Lake Huron are decreasing over the northern portion, and breaking up and moving over the extreme southern portion. Ice is moving out of Lake St. Clair and the Detroit River is open. In Lake Erie ice fields exist only in the eastern portion. No ice fields are reported in Lake Ontario, and ice in the harbors of that Lake is softening. As compared with the conditions existing at this date last season, there is much less ice in all the lakes.

There is now much less ice in the extreme northern districts than there was on the corresponding date of 1907.

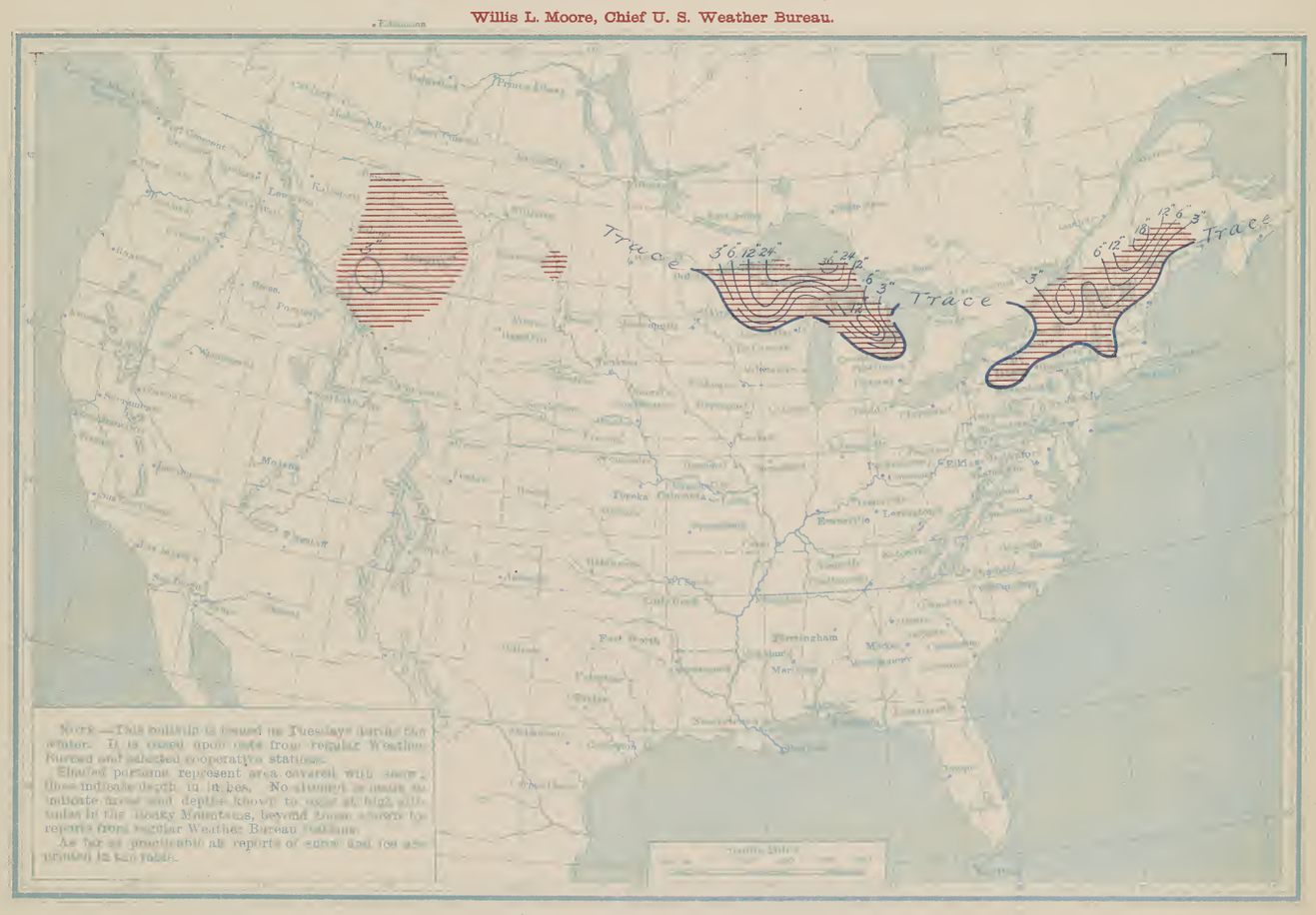
JAMES BERRY, *Chief Climatological Division.*

U. S. DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU.

SNOW AND ICE BULLETIN.

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

Willis L. Moore, Chief U. S. Weather Bureau.



WASHINGTON, D. C., *March 24, 1908.*

DEPTH OF SNOW.

The areas covered with snow at 8 p. m., March 23, 1908, are confined to the northern Rocky Mountain region and the northern portions of the upper Lake region, New York, and New England. The greatest depths are over the eastern portion of the Upper Michigan Peninsula along the southern shore of Lake Superior, where they range from 1 foot to 3 feet. Depths ranging from 1 foot to nearly 2 feet exist in some of the northern counties in the Lower Michigan Peninsula and in the interior of northern Maine. Except in the northern Rocky Mountain region, the area covered is smaller than that shown by the preceding bulletin, and the depths as a rule are less, altho the reports from a number of stations indicate no change, and a few show a slight increase.

At the corresponding date of 1907 there was considerably more snow along the northern New England coast and somewhat more in the northern Rocky Mountain region, but in the northern portion of the upper Lake region there was much less.

ICE IN RIVERS, HARBORS, ETC.

There was no ice at 8 p. m., March 23, 1908, except in the extreme northern districts from the upper Missouri Valley to the upper Lakes and in northern New England. In the upper Missouri River from Williston, N. Dak., to Bismarck, N. Dak., ice continues intact and ranges from 10 to 19.5 inches, being thickest at Bismarck. At stations in the Lake Superior region it ranges from 7.5 to 23 inches, and in extreme northern New England from 5 to 27 inches.

The daily mean temperatures were below freezing in the Red River of the North Valley thruout the week; in the northern portion of the upper Lake region and over the eastern portion of the lower Lake region, from the 17th to the 21st; in extreme northern New England, from the 17th to the 22d; in the upper Missouri Valley, on the 17th, 18th, and 19th; in the upper Mississippi Valley, from the 17th to the 20th; and over the western portion of the lower Lake region, on the 19th and 20th. As compared with the conditions existing on the 16th instant, but little change is noted in the northern portions of New England, over the eastern portion of the upper Lake region, and in the Red River of the North Valley; elsewhere there is less ice.

The following special reports have been received by telegraph; that from Detroit relates to the conditions existing thruout the Great Lakes and is a summary of a large number of reports collected at that station:

Bangor, Me., March 23.—The ice is thawing and measurements can not be made.
Lewiston, Me., March 23.—Twenty thousand tons of ice have been harvested.
Albany, N. Y., March 24.—There is no snow in the Mohawk Valley; in the Hudson Valley the snow averages 3 inches in depth from Glens Falls northward. The Hudson and Mohawk rivers are practically clear of ice.

DEPTH OF SNOW AND THICKNESS OF ICE AT 8 P. M., MARCH 23, 1908.

Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.	Stations.	Snow.	Ice in rivers, harbors, etc.
Connecticut.	*Inches*	*Inches*	*Michigan*—Cont'd.	*Inches*	*Inches*	*New York*—Cont'd.	*Inches*	*Inches*
West Simsbury	T.	.....	Iron Mountain	2	.....	De Ruyter	T.	.....
Maine.			Lewiston	23	.....	Franklinville	T.	.....
Buckfield	3	.....	Mackinaw City	5	.....	Lake Placid	8	.....
Danforth	2	.....	Mancelona	12	.....	Saranac Lake	6	.....
Eastport	.....	22.5	Maple Ridge	18	.....	*North Dakota.*		
Gardiner	T.	5.0	Marquette	27	7.5	Bismarck	T.	19.5
Greenville	16	27.0	Onaway	1	.....	Williston	.....	10.0
Lewiston	T.	15.0	Sault Ste. Marie	8	17.0	*Pennsylvania.*		
Millinocket	23	.....	*Minnesota.*			Towanda	T.	.....
Orono	T.	.....	Duluth	T.	18.0	*Vermont.*		
Massachusetts.			Moorhead	T.	30.0	Burlington	T.	10.5
Adams	T.	.....	*Montana.*			Northfield	T.	.....
Michigan.			Havre	1	.....	St. Johnsbury	3	.....
Alpena	T.	0.0	Miles City	1	.....	*Wisconsin.*		
Calumet	24	.....	*New Hampshire.*			Ashland	3	.....
Carsonville	2	.....	Bethlehem	T.	.....	Koepenick	12	.....
Chatham	11	.....	*New York.*			Medford	T.	.....
Escanaba	1	23.0	Addison	T.	.....	Stevens Point	T.	.....
Grand Marais	36	.....	Canton	T.	.....	*Wyoming.*		
Houghton	10	17.0	Cooperstown	T.	.....	Yellowstone Park	3	.....
Humboldt	25	.....						

T. indicates trace.

Buffalo, N. Y, March 23.—There is no harbor ice. The lake ice is honeycombing.

Detroit, Mich., March 24.—In Lake Superior there are large broken ice fields drifting over the western, central, and eastern portions; the ice is not heavy. Whitefish Bay is solidly frozen. The conditions in Green Bay and the St. Marys River remain as reported on the 17th instant; the ice is intact, with water on top, in the former, and is softening in the latter. In Lake Michigan the ice is confined to the northern portion. The Straits of Mackinac continue firm. In Lake Huron the fields are moving with the wind and are diminishing. Ice is running out of Lake St. Clair. In Lake Erie ice is confined to the eastern portion and is breaking up. In Lake Ontario the ice is also confined to the eastern portion and the harbors are opening. As compared with last season, there is less ice in all the lakes, but the conditions in Green Bay and the Straits of Mackinac are not as favorable.

There is now less ice than there was at the corresponding date of 1907, except at some stations in the upper Lake region and in the Red River of the North and upper Missouri River.

JAMES BERRY, *Chief Climatological Division.*

NOTE.—This will be the last bulletin of this series for the season of 1907-8.